ORDER NO. AD8804008C2

Service Manual

Amplifier

Digital Integrated Amplifier

SU-X990D

Color

(K).....Black Type

Area

Color	Area
(K)	(E) .....Continental Europe.
(K)	(EH).....Holland.
(K)	(EK).....United Kingdom.
(K)	(EB).....Belgium.
(K)	(EF).....France.
(K)	(EG).....F.R.Germany.
(K)	(Ei) .....Italy.

SPECIFICATIONS

(DIN 45 500)

■ AMPLIFIER SECTION

DIN power output	
1 kHz THD:1%	2 x 100 W (8Ω)
Total harmonic distortion	
rated power at 1 kHz	1% (8Ω)
Harmonic distortion	
half power at 1 kHz	0.007% (8Ω)
Residual hum and noise	0.2 mV
Damping factor	30 (8Ω)
Input sensitivity and impedance	
PHONO	3mV/47 kΩ
TUNER,AUX,TAPE 1,TAPE 2	150mV/22 kΩ
CD	200mV/22 kΩ
Maximum input voltage (1 kHz,RMS)	
PHONO	100 mV
S/N (rated power 8Ω)	
PHONO	75 dB (IHF,A:79 dB)
TUNER,CD,AUX,TAPE 1,TAPE 2	82 dB (IHF,A:83 dB)
Frequency responce	
PHONO	RIAA standard curve ± 0.8dB(30 Hz ~ 15 kHz)
TUNER,CD,AUX,TAPE 1,TAPE 2	10 Hz ~ 60 kHz (-3 dB)
CD,DAT (digital section)	15 Hz ~ 20 kHz (-0.5 dB)
Tone controls	
BASS	50 Hz, +10 dB ~ -10 dB
TREBLE	20 kHz, +10 dB ~ -10 dB
Muting	-20 dB
Super bass	70 Hz, +10 dB
Output voltage	
TAPE 1,TAPE 2,REC OUT	150 mV
Channel balance,AUX 250 Hz ~ 6,300 Hz	±1.0 dB
Channel separation, AUX 1 kHz	60dB
Headphones output level and impedance	660 mV/330 Ω
Load impedance	
MAIN or REMOTE	8 Ω ~ 16 Ω
SURROUND	8 Ω ~ 16 Ω

■ GENERAL

Power consumption	460 W
Power supply	
For United Kingdom	AC 50 Hz/60 Hz,240V
For others	AC 50 Hz/60 Hz,220V
Dimensions (W x H x D)	360 x 128 x 300 mm (14-3/16″ x 5-1/32″ x 11-13/16″)
Weight	7.9 kg (17.4 lb.)

Notes:

1.Specifications are subject to change without notice. Weight and dimensions are approximate.

2.Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

Technics

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

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■ BEFORE REPAIR

(1)Turn off the power supply. Using a 10Ω, 5W resistor connect both ends of power supply capacitors(C701,C702,6800μF) in order to discharge the voltage.

(2)Before turning the power supply on , after completion of repair , slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50Hz/60Hz in NO SIGNAL mode should be shown below with respect to supply voltage 220V/240V.

Power supply voltage	AC220V	AC240V
Consumed current 50Hz	165 ~ 495mA	152 ~ 456mA
Consumed current 60Hz	158 ~ 474mA	146 ~ 437mA

■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

* No sound is heard when the power is switched ON.

* Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted" , or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.
If this occurs, follow the procedure outlined below:

1.Switch OFF the power.

2.Determine the cause of the problem and correct it.

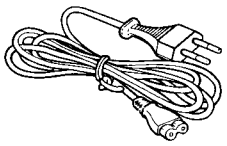
3.Switch ON the power once again.

Note:
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

■ ACCESSORY

• AC power supply cord.....1
Configuration of AC power supply cord differs according to area.

SFDAC05E03.....For (E),(EG),(EF),(EH),(EB) and (Ei) areas.
SJA188 .....For (EK) area only.



■ LOCATION OF CONTROLS

•Front panel

Audio muting switch/indicator (MUTING)
Press this switch when a disc is being changed or to temporarily reduce the volume level (approx. 1/10).

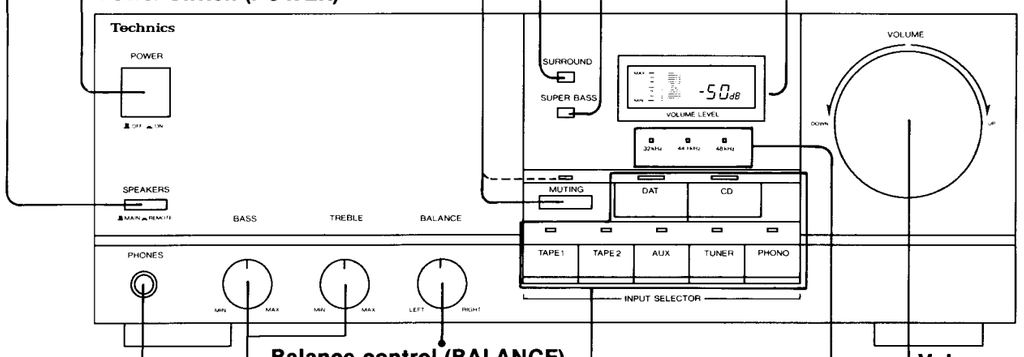
Speaker selector (SPEAKERS)
This selector is used to select the speaker systems to be used.
MAIN (→):
Sound can be heard from the speakers connected to the "MAIN" and "SURROUND" terminals,
REMOTE (→):
Sound can be heard from the speaker systems connected to the "REMOTE" terminals.
In this position, sound cannot be heard from the speaker systems connected to the "SURROUND" terminals.

Surround-sound switch (SURROUND)
This switch is used to switch the surround sound effect on and off. (The switch itself will be illuminated.)

Super bass switch (SUPER BASS)
When this switch is switched ON (the switch itself will be illuminated.), the ultra-low frequency range can be reinforced.

Volume-level indicator (VOLUME LEVEL)
The volume level is indicated in decibels (dB).
The dB indication numerically shows the attenuation characteristic of the amplifier; the indication ranges from "– –dB" (minimum) to "0 dB" (maximum).
The volume level becomes greater as the indication proceeds from –76 to –74 to –72 dB.

Power switch (POWER)



Balance control (BALANCE)
This control is used to adjust left/right volume balance.

Tone controls (BASS/TREBLE)
The bass control is for the low-frequency sound range, and the treble control is for the high-frequency sound range.

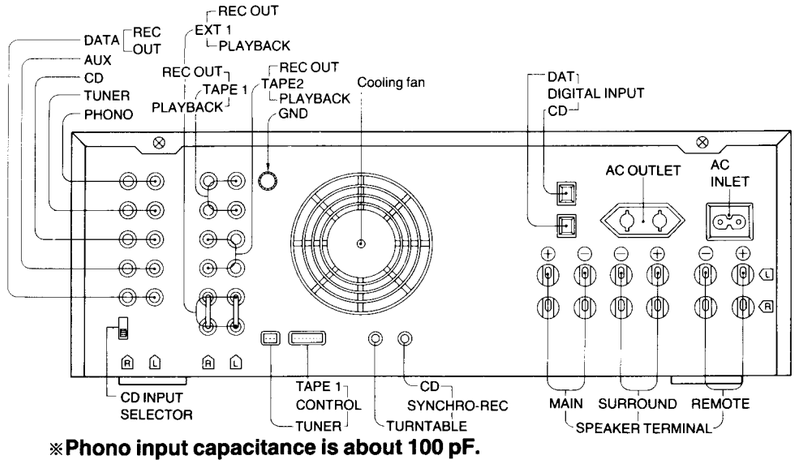
Volume control (VOLUME)
This control is used to adjust the volume level.

Headphones jack (PHONES)

Input selectors/indicators (INPUT SELECTOR)
These selectors are used to select the sound source to be heard, such as a disc, radio broadcasts, etc. The corresponding indicator illuminates during operation to indicate the selected sound source.

Sampling frequency indicators
These indicators function to illuminate to indicate the detection of the sampling frequency of the digital signals input to the "DIGITAL INPUT" terminals on the rear panel of this unit. (Illumination occurs when digital signals are received.)
32 kHz: For digital signals with the sampling frequency of 32 kHz mode
44.1 kHz: CD and others
48 kHz: For digital signals with the sampling frequency of 48 kHz mode

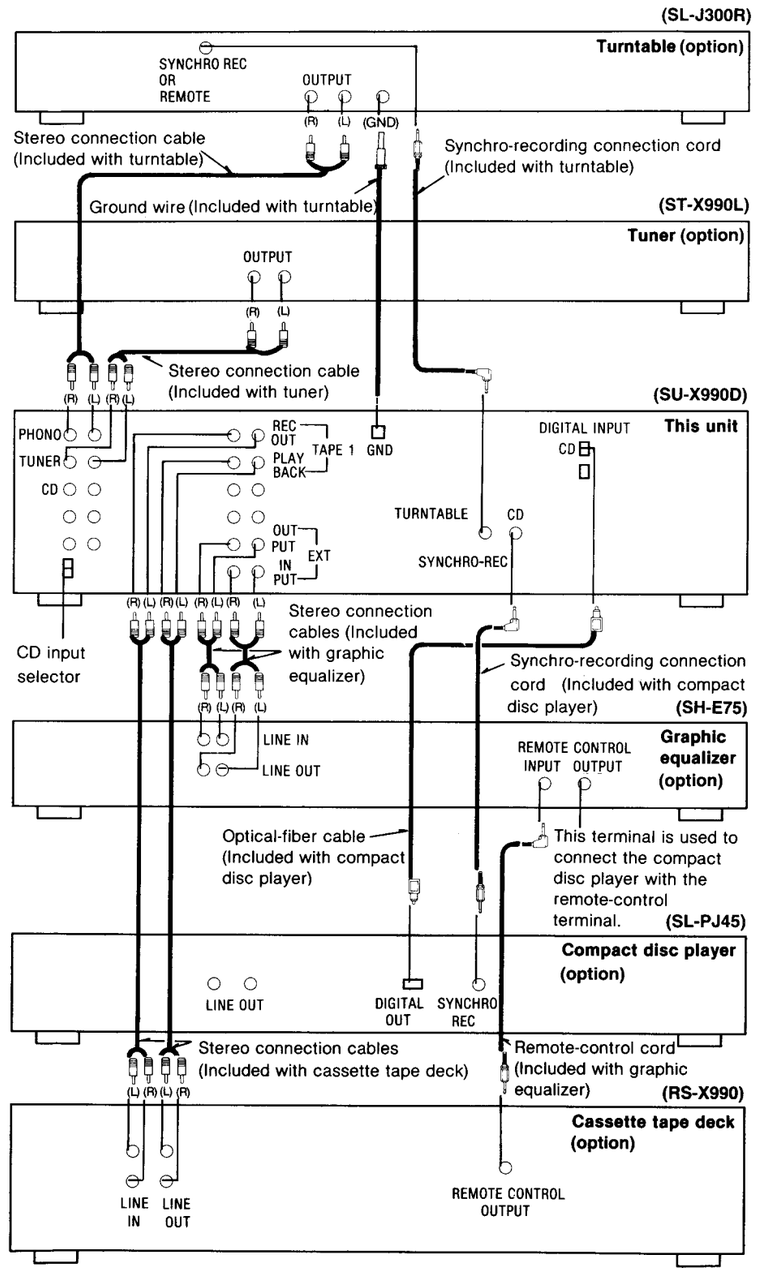
•Rear panel



※Phono input capacitance is about 100 pF.

■ CONNECTIONS

1. Make the connections of the stereo connection cables, the synchro-recording connection cords (option), and the remote-control cord (option).
Then, set the CD input selector of this unit to the "DIGITAL" position. (See below.)
Note: Although the synchro-recording connection cords and the remote-control cord are differentiated in the figure below, actually they are the same shape.



■Compact disc player connections

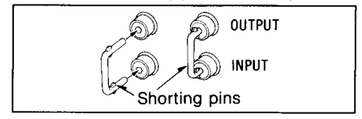
If your compact disc player does not include optical-fiber cable, use stereo connection cables (option) to make the connections between the "CD" terminals of this unit and the "LINE OUT" terminals of the compact disc player. If this type of connection is made, the amplifier's CD input selector should be set to "ANALOG".

■CD input selector of this unit

This selector is used for selection of the format (analog or digital) of the input signals from the compact disc player.
ANALOG:
Set to this position if stereo connection cables are used.
DIGITAL:
Set to this position if optical-fiber cable is used.
Notes:
1. Be sure the power switch of this unit is switched OFF before changing the setting of this selector. (Interference noise may be emitted if the power switch is ON.)
2. The setting of this selector must be made correctly; if not, no sound will be emitted when the "CD" setting of the input selector on this unit is selected.

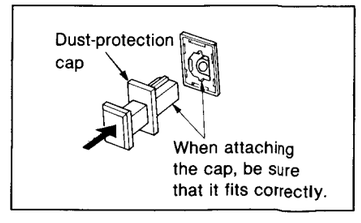
■"EXT" terminals of this unit

When these terminals are not in use, be sure to insert the shorting pins (included).



■"DIGITAL INPUT" terminals of this unit

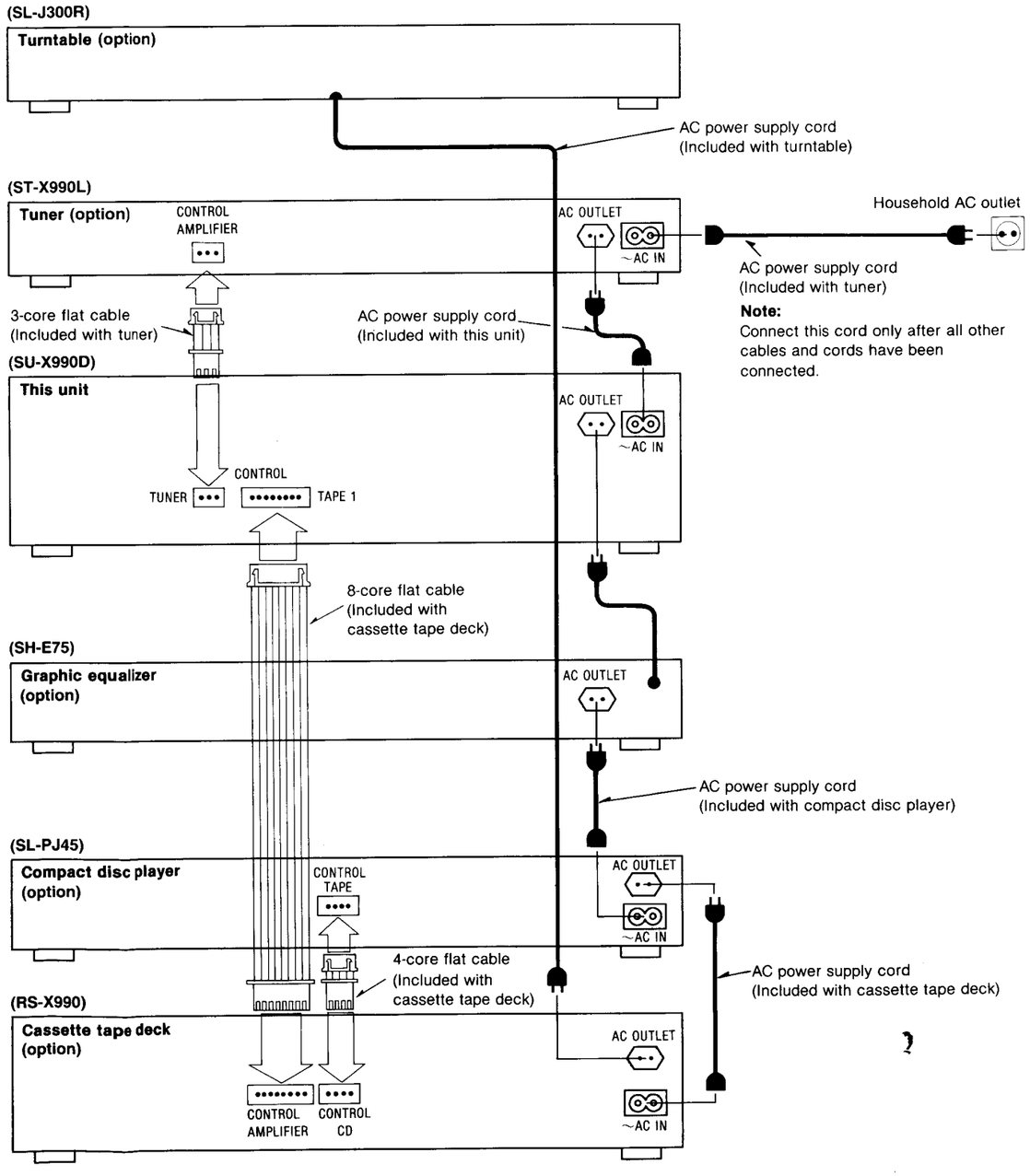
The dust-protection caps are used to cover and protect these terminals.
Remove the caps only when the "DIGITAL INPUT" terminals are to be used.
Note:
Be sure to use the dust-protection caps to again cover these terminals when that are not being used.
These covers serve to prevent the entry of dust, etc. into the terminals, because such foreign material can cause incorrect operation.



2. Make the connections of the flat cables and the AC power supply cords.

1. Do not connect video-related equipment (such as a TV, etc.) to the AC outlets of these components. (These outlets are especially for audio equipment.) Also do not exceed the indicated power ratings when connecting to these outlets.
2. The tuner's power outlet is interlocked with the power "STANDBY ⏻ /ON" switch of the tuner.
3. If the graphic equalizer is not used in combination with these components, connect the AC power supply cord of the compact disc player to the AC outlet of the amplifier. If the compact disc player is not used in combination with these components, connect the AC power supply cord of the cassette tape deck to the AC outlet of the graphic equalizer.

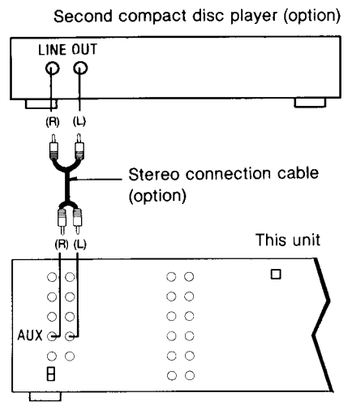
Note: The configurations of the AC outlets and AC power supply cords differ according to area.



Connections to other equipment

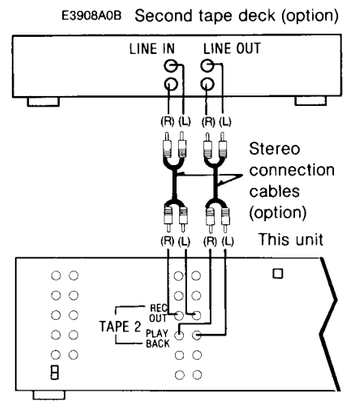
"AUX" terminals

Connect a second compact disc player, etc.



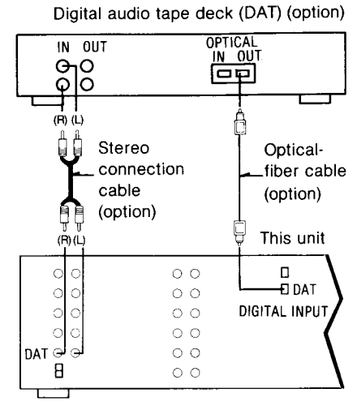
"TAPE 2" terminals

Connect a video cassette recorder (for audio only) or a second audio tape deck.



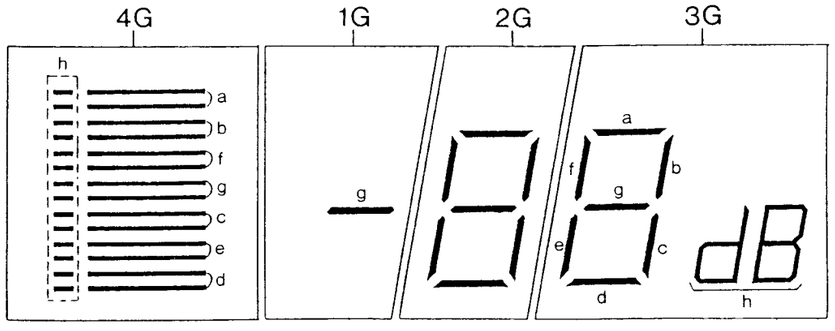
"DAT" terminals

Connect a digital audio tape deck (DAT).



■ DESCRIPTION OF FL PANEL

•GRID ASSIGNMENT



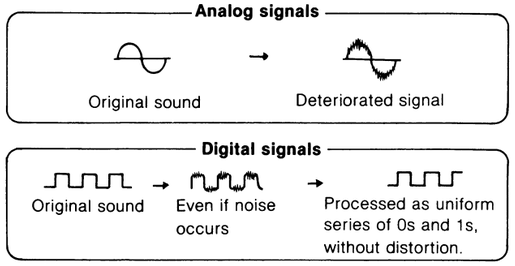
•PIN CONNECTION

Pin No.	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Connection	F 2	F 2	N P	a	4 G	b	c	d	1 G	e	f	2 G	g	3 G	N P	h	3 G	N P	F 1	F 1

■ DIGITALIZATION OF AUDIO SIGNALS

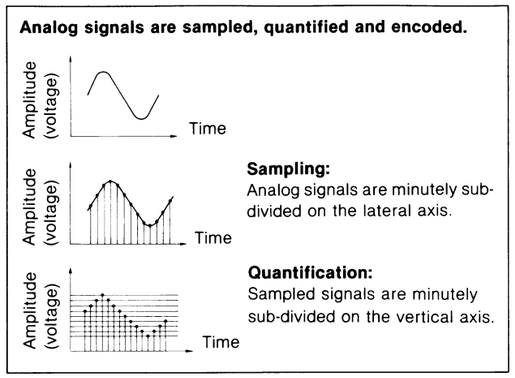
■Why digitize?

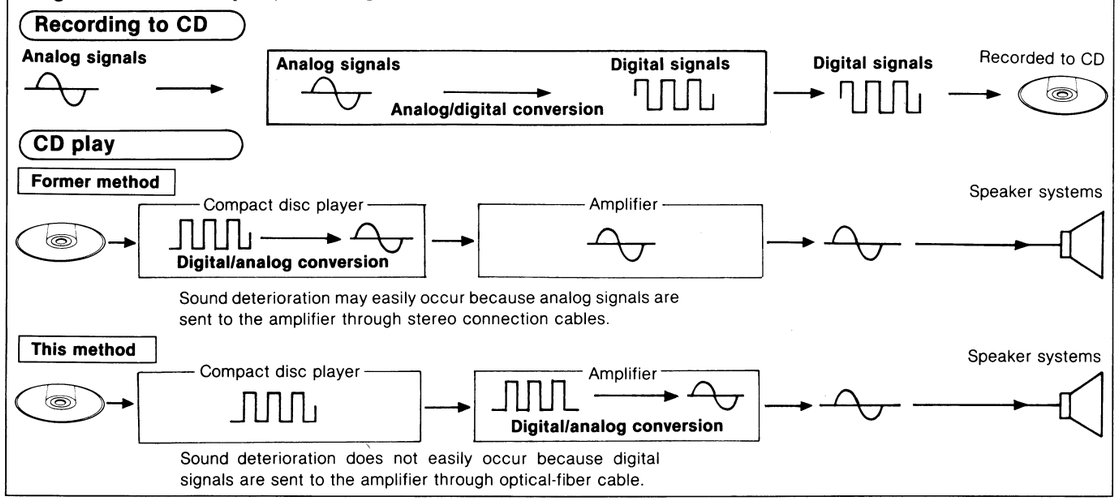
- Audio signals are analog signals with a continuous form.
- When these audio signals are subjected to repeated electronic processing (recording, playback, etc.), they become noisy and distortion occurs, thus resulting in deterioration of the sound quality.
- When these signals are first digitized before processing, they have the following advantages that prevent deterioration of the sound quality:
  ① Resistance to noise
  ② Extremely low distortion
  ③ Flat, even frequency response



■How signals are digitized

If it is known to what degree of minuteness the human ear can distinguish sounds, it is then possible, by using that data as the standard reference, to digitize them by dividing analog signals into minute pieces, after which they can be transmitted with a high degree of precision, and thereafter recorded and played back in the digitized format.


Analog signals are sampled, quantified and encoded.
Amplitude (voltage)
Time
Sampling:
Analog signals are minutely sub-divided on the lateral axis.
Quantification:
Sampled signals are minutely sub-divided on the vertical axis.



What the sampling frequency is

The sampling frequency expresses the degree of minuteness to which signals can be cut, relative to a certain specified time interval, during sampling.
For compact disc sound:
Analog signals are cut 44,100 times (i.e., 44.1 kHz) during one second.
This 44.1 kHz is, therefore, the sampling frequency for compact disc sound.

What analog/digital conversion is

Audio signals (analog signals) are taken out (sampled) at certain fixed time intervals. The points at which this sampling frequency occurs are digitally encoded and converted to digital signals.

What digital/analog conversion is

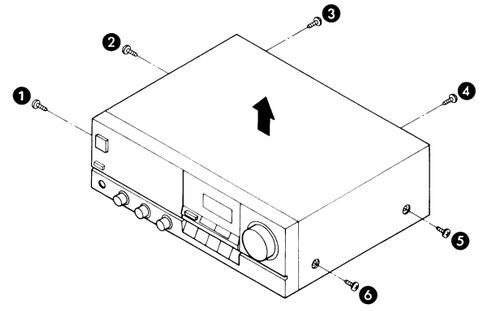
Each sampling frequency point is returned (converted) to voltage, thus converting digital signals to the analog signals that we can hear.

■ DISASSEMBLY INSTRUCTIONS

Ref. No. 1 — How to remove the cabinet

Procedure 1

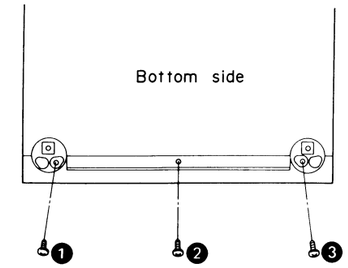
●Remove the 6 screws.

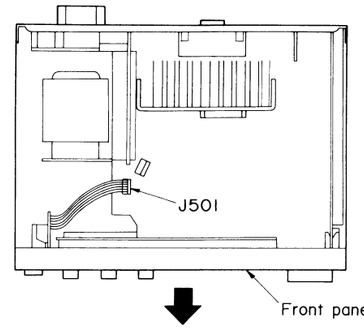


Ref. No. 2 — How to remove the front panel

Procedure 1→2

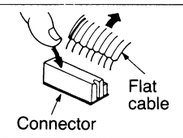
1. Remove the 3 screws (❶~❸).
2. Remove the flat cable (J501).
3. Pull out the 1 connector (J801).
4. Remove the front panel in the direction of the arrow.





How to remove the flat cable

Pull out the flat cable while pressing the connector.



Ref. No. 3 — How to remove the power switch P.C.B.

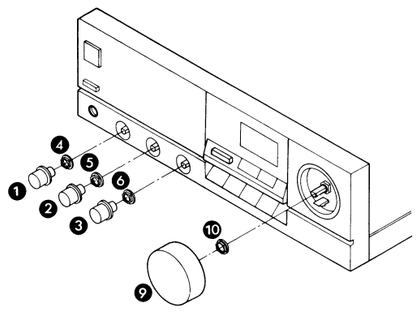
Procedure 1→2→3

1. Remove the power switch knob by pushing it from behind the front panel.
2. Remove the 2 screws (❶, ❷).

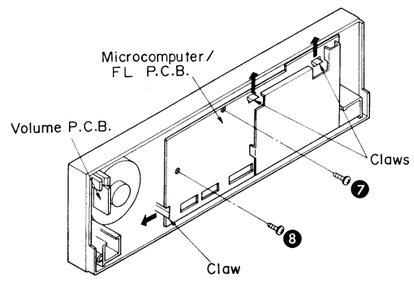
Ref. No. 4 — How to remove the microcomputer/ FL P.C.B. and volume P.C.B.

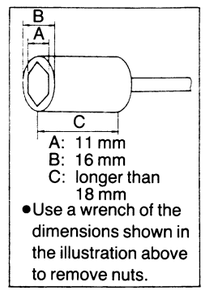
Procedure 1→2→4

How to remove the volume P.C.B.
1. Remove the 1 knob (❾).
2. Remove the 1 nut (❿).



How to remove the microcomputer/ FL P.C.B.
1. Remove the 3 knobs (❶~❸).
2. Remove the 3 nuts (❹~❻).
3. Remove the 2 screws (❼, ❽).
4. Push the 3 claws and remove the microcomputer/FL P.C.B.





●Use a wrench of the dimensions shown in the illustration above to remove nuts.

Ref. No. 5

Procedure 1→2→4→5

How to re
1. Remov
2. Push t P.C.B.

How to re
●Remove

Ref. No. 7

Procedure 1→6→7

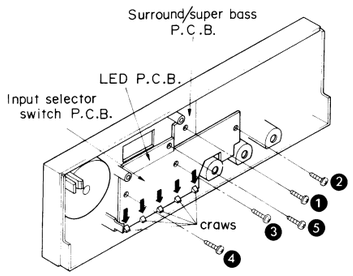
Ref. No. 5 — How to remove the surround/super bass P.C.B., input selector switch P.C.B. and LED P.C.B.

Procedure 1→2→4→5

How to remove the surround/super bass P.C.B.
- Remove the 1 screw (❶).

How to remove the input selector switch P.C.B.
1. Remove the 3 screws (❷~❹).
2. Push the 5 claws and remove the input selector switch P.C.B.

How to remove the LED P.C.B.
- Remove the 1 screw (❺).



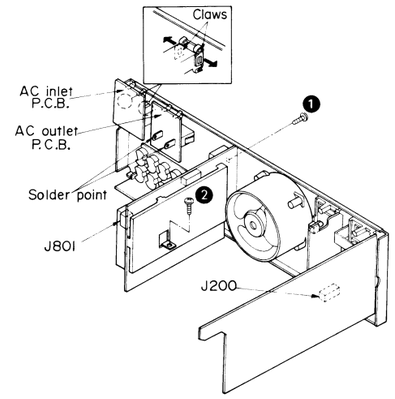
Ref. No. 6 — How to remove the digital input P.C.B. AC outlet P.C.B. and AC inlet P.C.B.

Procedure 1→6

How to remove the digital input P.C.B.
1. Pull out the 2 connectors (J200, J801).
2. Remove the 2 screws (❶, ❷).

How to remove the AC inlet
- Pull out the 2 claws in the direction of the arrow.

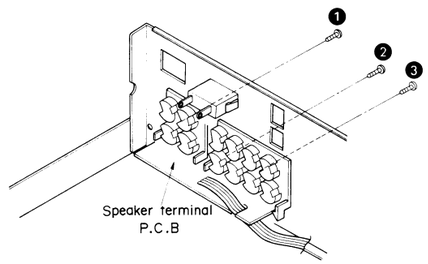
How to remove the AC outlet
- Unsolder the 2 terminals.



Ref. No. 7 — How to remove the speaker terminal P.C.B.

Procedure 1→6→7

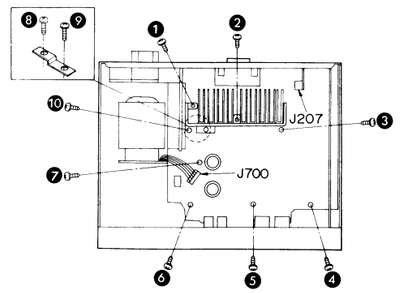
- Remove the 3 screws (❶~❸).



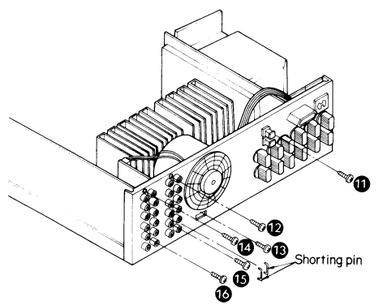
Ref. No. 8 — How to remove the main P.C.B.

Procedure 1→8

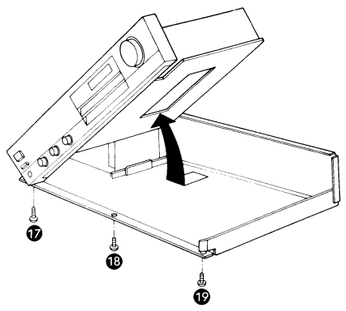
1. Remove the 8 screws (❶~❿).
2. Remove the flat cable (J207, J700).



3. Remove the 6 screws (⓫~⓰).
4. Remove the shorting pin.



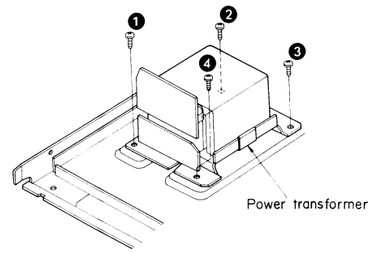
5. Remove the 3 screws (⓱~⓳).



Ref. No. 9 — How to remove the power transformer

Procedure 1→6→7→9

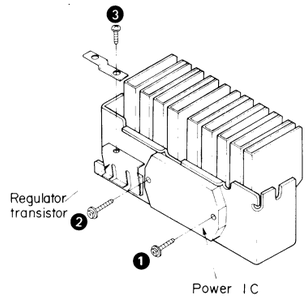
- Remove the 4 screws (❶~❹).



Ref. No. 10 — How to remove the power IC and regulator transistor

Procedure 1→8→10

1. Unsolder the power IC or regulator transistor.
2. Remove the 3 screws (❶~❸).

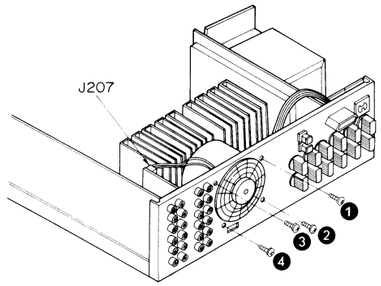


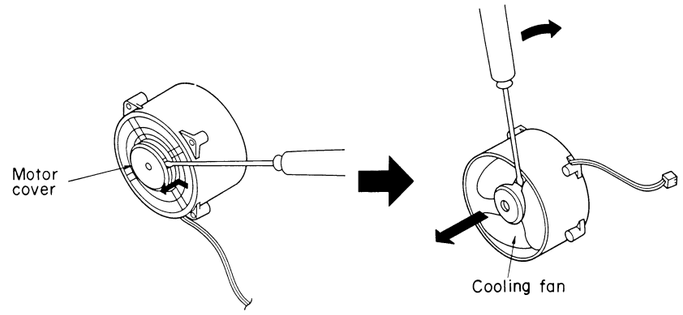
- **When mounting the power IC or regulator transistor.**
  Apply silicone compond (SZZOL15) to the rear side of power IC or regulator transistor.

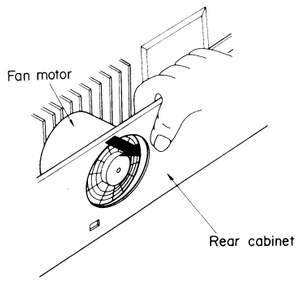
Ref. No. 11 — How to remove the fan motor

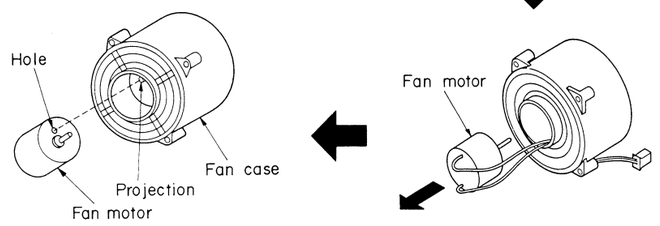
Procedure 1→11

1. Pull out the 1 connector (J207).
2. Remove the 4 screws (❶~❹).
3. Press the rear cabinet in the direction of the arrow to remove the fan motor.
4. Insert a screwdriver at the root of the cooling fan. Force it out of the motor shaft.
5. Remove the motor cover by used ⊖ screwdriver.
6. Remove the motor from the fan casing.
7. When mounting the motor fan, align the fan casing's projection with the hole of the fan motor.









■ SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology.)

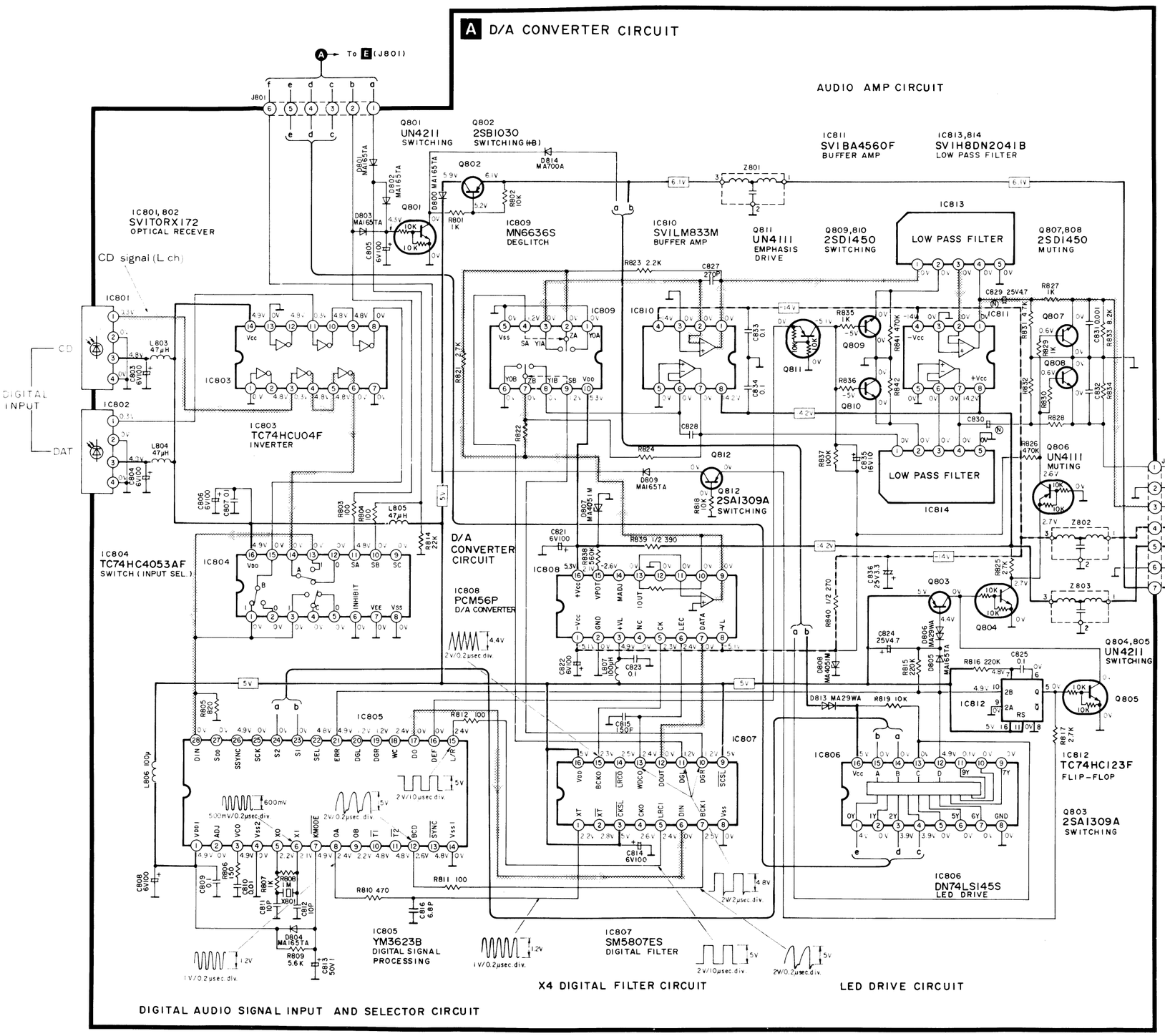
Notes:

- **•S201** : CD input selector switch in **"digital"** position
- **•S501** : Speaker selector switch in **"main"** position
- **•S601~S608** : Input selector switches
  S601: Phono, S602: Tuner, S603: CD, S604: Tape 1
  S605: Tape 2, S606: Aux, S607: Dat, S608: Muting
- **•S609** : Surround-sound switch
- **•S610** : Super bass switch
- **•S700** : Power switch in **"on"** position

CD signal (Lch), Phono signal (Lch)
Recording signal
Positive voltage lines (+)
Super bass signal
Phase difference signal
Negative voltage lines (−)

- •Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
- •Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

•Caution!
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care furing repair.
•Cover the parts boxes made of plastics with aluminum foil.
•Ground the soldering iron.
•Put a conductive mat on the work table.
•Do not touch the legs of IC or LSI with the fingers directly.



13 14 15 16 17 18 19 20 21 22 23 24 25 26

B PHONO EQ. AMP/ATTENUATOR/SURROUND AMP/ INPUT SELECTOR CIRCUIT

PHONO L ch R ch
TUNER L ch R ch
CD L ch R ch
AUX L ch R ch
DAT REC OUT L ch R ch

Phono signal (L ch)
For (EG, EI) areas.
GND
IC101 AN6558F EQ AMP
PHONO EQ. AMP CIRCUIT
Recording signal
IC200 TC4066BF CD INPUT SELECTOR
S201 (CD INPUT SELECTOR) analog — digital

IC201 TC9164N INPUT SELECTOR
INPUT SELECTOR CIRCUIT

IC301 (-L) M5238P PHASE SHIFT
Phase difference signal
IC302 AN6554F MIXING/ PHASE SHIFT
IC303 AN6558F BUFFER AMP
(L-R)
SURROUND AMP CIRCUIT

Q807,808 2SD1450 MUTING
Q806 UN4111 MUTING
Q805 UN4211 SWITCHING
Q804,805 UN4211 SWITCHING
IC812 TC74HC123F FLIP-FLOP
Q803 2SA1309A SWITCHING

Q200 2SC3311A SWITCHING
IC306 M51131L ATTENUATOR
IC304 AN6557F BUFFER AMP
IC305 AN6557F MIXING AMP
IC307 M51131L ATTENUATOR
ELECTRONIC VOLUME CIRCUIT
For (EG, EI) areas.

Q201, 202 2SD1450 MUTING
Q203 2SA1309A MUTING CONTROL
EXT. INPUT L ch R ch
TAPE 1 REC OUT L ch R ch
TAPE 2 PLAYBACK L ch R ch
FAN MOTOR
MOTOR CONTROL CIRCUIT

Q523 2SC3311A MOTOR DRIVE
Q524 2SA1309A MOTOR DRIVE

C INPUT/OUTPUT TERMINAL CIRCUIT

D MOTOR CONTROL/VOLTAGE CONTROL AMP/POWER AMP/ CURRENT DRIVE AMP/MUTING/PROTECTION/POWER SOURCE CIRCUIT

E TONE AMP/SUPER BASS AMP/FL CONTROL CIRCUIT

SYSTEM CONTROL CIRCUIT

TONE AMP CIRCUIT

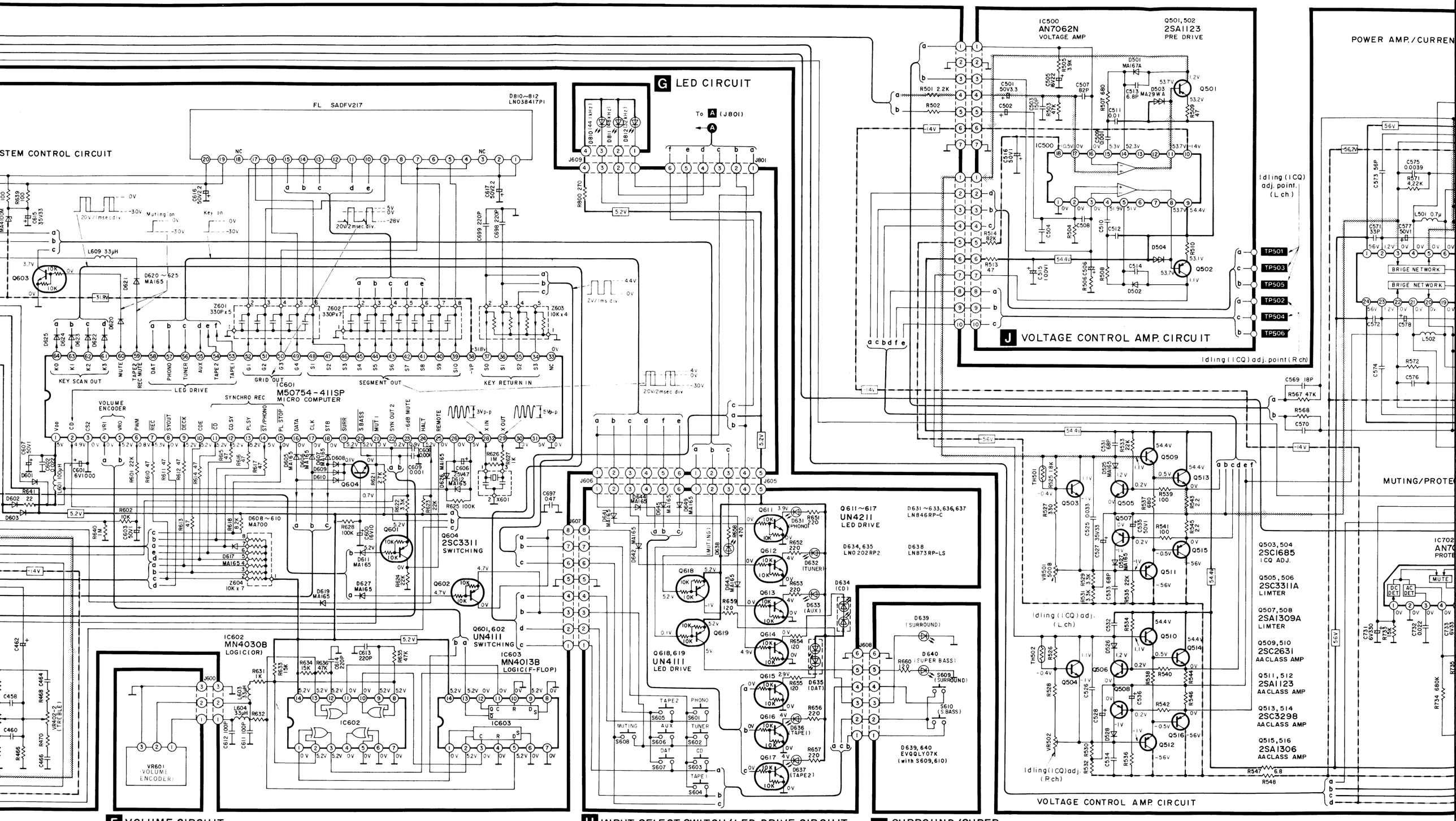
SUPER BASS AMP CIRCUIT

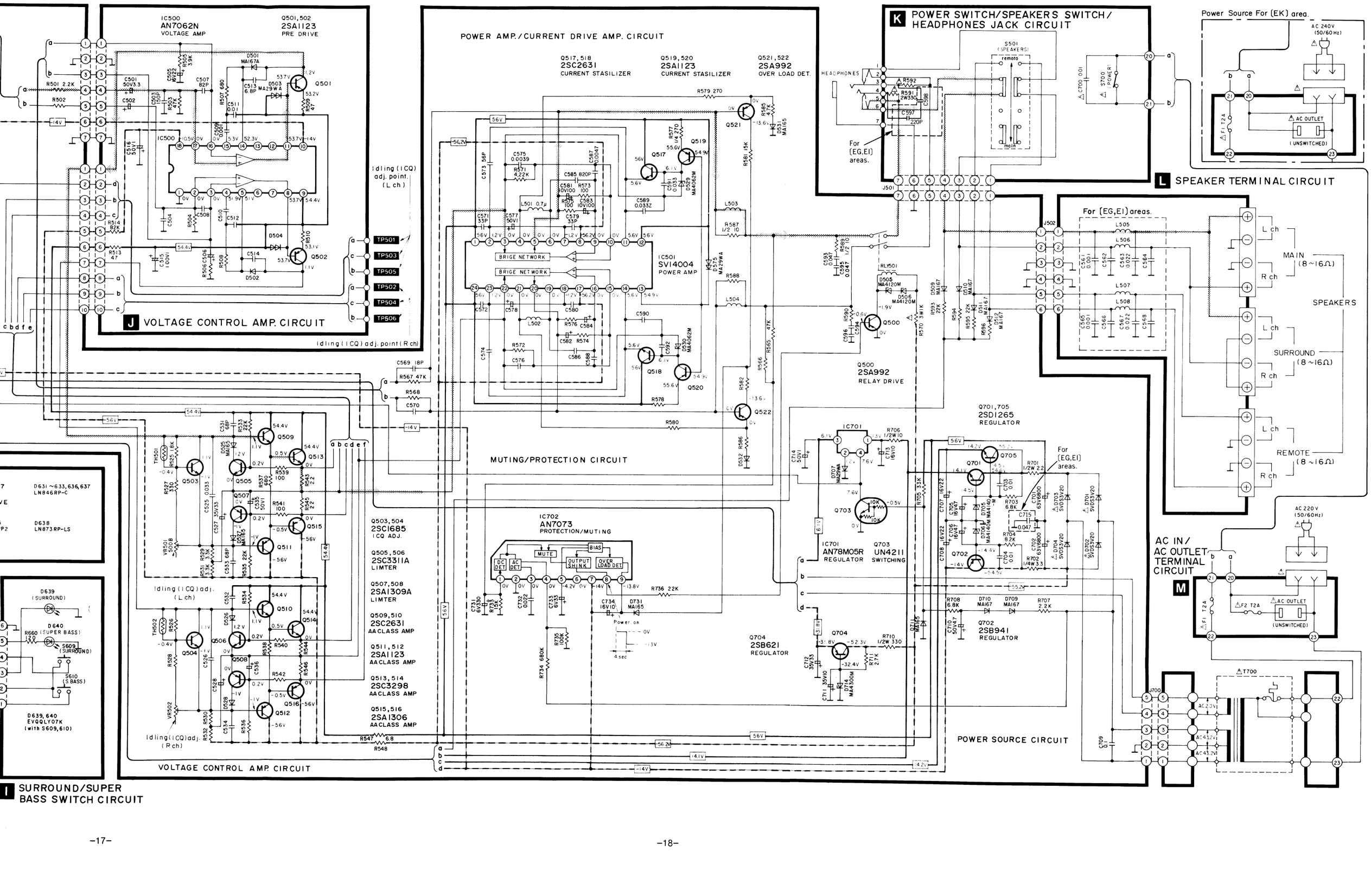
F VOLUME CIRCUIT

G LED CIR

H INPUT SELECT SWITC

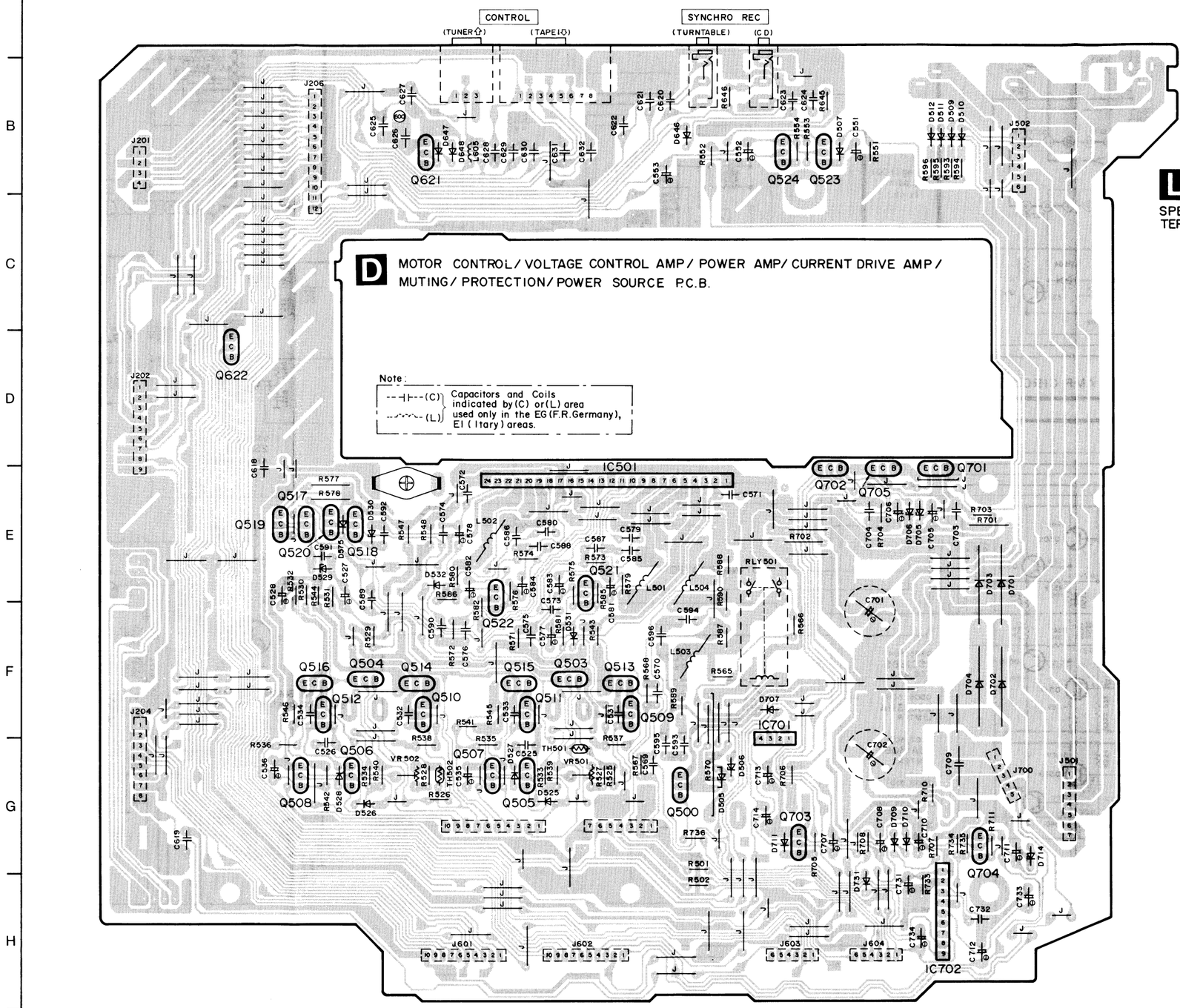
35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48

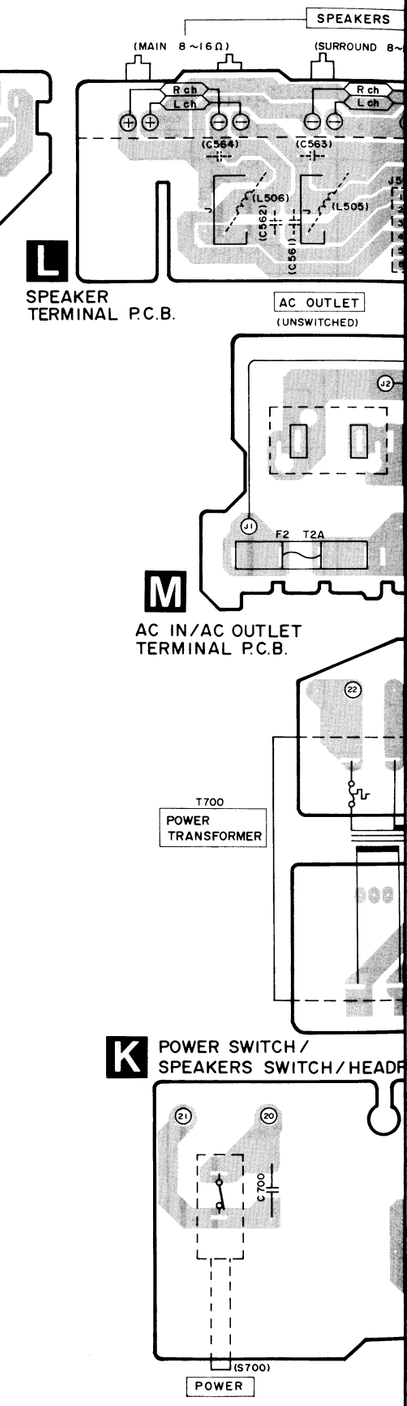


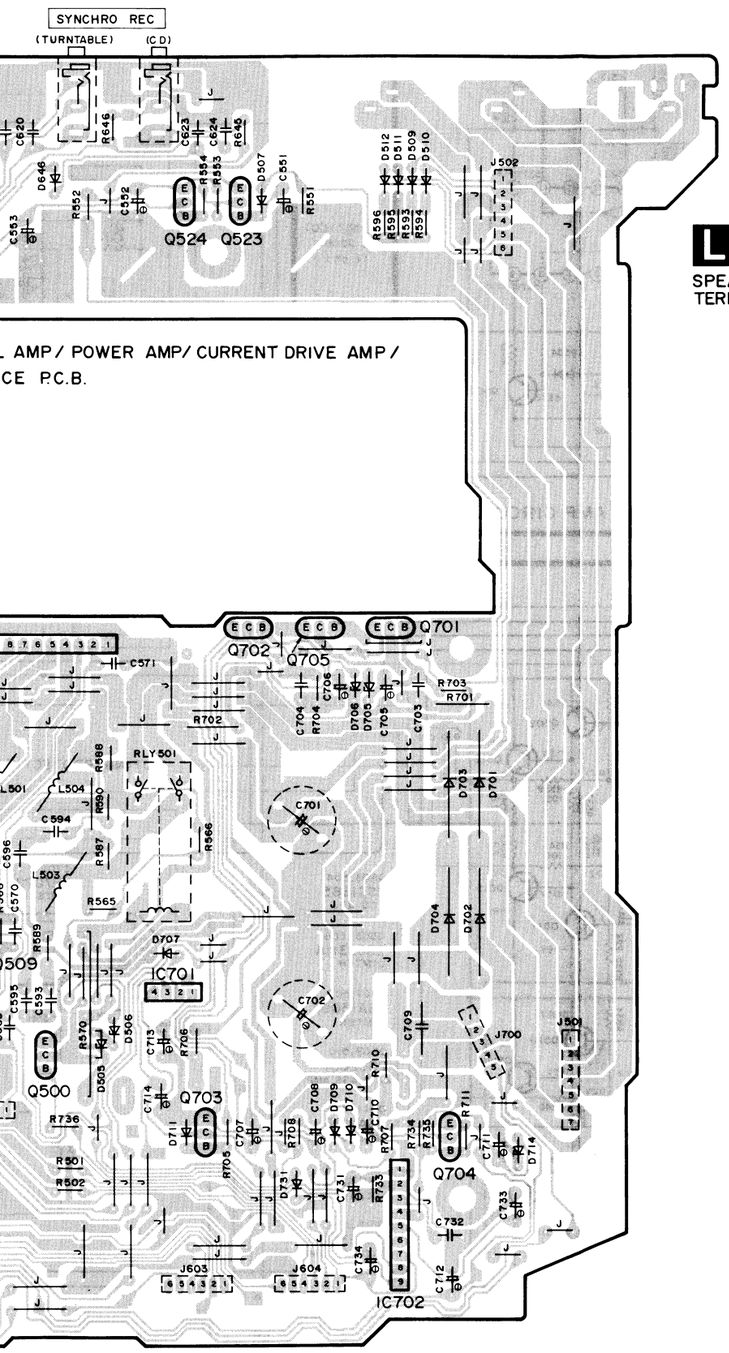

43
44
45
46
47
48
49
50
51
52
53
54
55
56
J VOLTAGE CONTROL AMP. CIRCUIT
IC500
AN7062N
VOLTAGE AMP
Q501,502
2SA1123
PRE DRIVE
Idling (ICQ) adj. point (L ch)
Idling (ICQ) adj. point (R ch)
TP501
TP503
TP505
TP502
TP504
TP506
POWER AMP./CURRENT DRIVE AMP. CIRCUIT
Q517,518
2SC2631
CURRENT STASILIZER
Q519,520
2SA1123
CURRENT STASILIZER
Q521,522
2SA992
OVER LOAD DET.
IC501
SV14004
POWER AMP
BRIGE NETWORK
BRIGE NETWORK
MUTING/PROTECTION CIRCUIT
IC702
AN7073
PROTECTION/MUTING
MUTE
BIAS
DC DET
AC DET
OUTPUT SHRINK
OVER LOAD DET
Power on
4 sec
K POWER SWITCH/SPEAKERS SWITCH/ HEADPHONES JACK CIRCUIT
HEADPHONES
S501 (SPEAKERS)
remoto
main
For (EG,EI) areas.
S700 POWER
AC OUTLET
(UNSWITCHED)
Power Source For (EK) area.
AC 240V (50/60Hz)
F1 T2A
L SPEAKER TERMINAL CIRCUIT
J501
J502
For (EG,EI) areas.
L ch
R ch
MAIN (8~16Ω)
SPEAKERS
SURROUND (8~16Ω)
REMOTE (8~16Ω)
RLY501
Q500
2SA992
RELAY DRIVE
Q701,705
2SD1265
REGULATOR
IC701
AN78M05R
REGULATOR
Q703
UN4211
SWITCHING
Q704
2SB621
REGULATOR
Q702
2SB941
REGULATOR
For (EG,EI) areas.
POWER SOURCE CIRCUIT
AC IN/ AC OUTLET TERMINAL CIRCUIT
M
AC 220V (50/60Hz)
AC OUTLET
F2 T2A
(UNSWITCHED)
T700
J700
AC 2.0V
AC 4.1.2V
AC 43.2V
VOLTAGE CONTROL AMP CIRCUIT
Q503,504
2SC1685
ICQ ADJ.
Q505,506
2SC3311A
LIMTER
Q507,508
2SA1309A
LIMTER
Q509,510
2SC2631
AA CLASS AMP
Q511,512
2SA1123
AA CLASS AMP
Q513,514
2SC3298
AA CLASS AMP
Q515,516
2SA1306
AA CLASS AMP
Idling (ICQ) adj. (L ch)
Idling (ICQ) adj. (R ch)
I SURROUND/SUPER BASS SWITCH CIRCUIT
D639 (SURROUND)
D640 (SUPER BASS)
S609 (SURROUND)
S610 (S.BASS)
D639,640
EVQQLY07K
(with S609,610)
D631~633,636,637
LN846RP-C
D638
LN873RP-LS

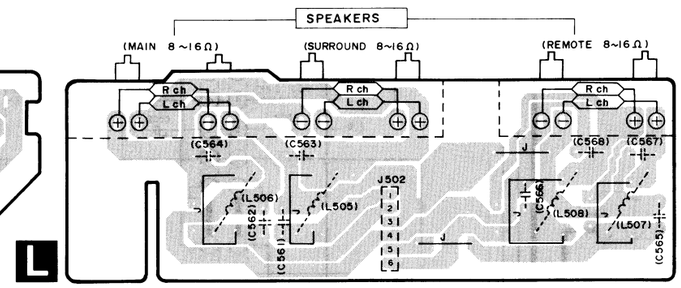
SU-X990D SU-X990D

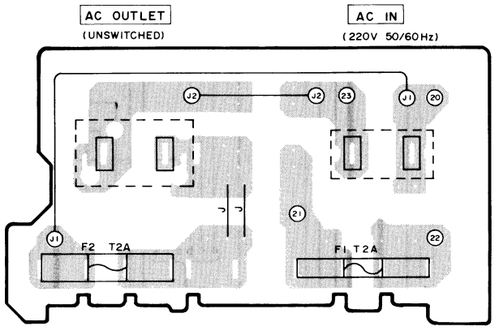
■ PRINTED CIRCUIT BOARDS

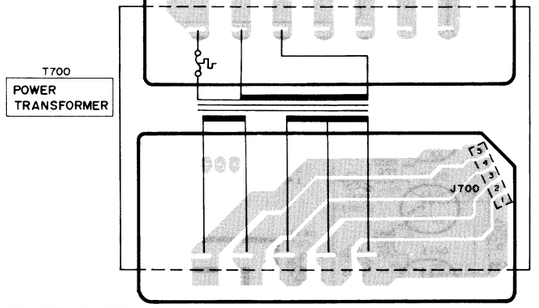


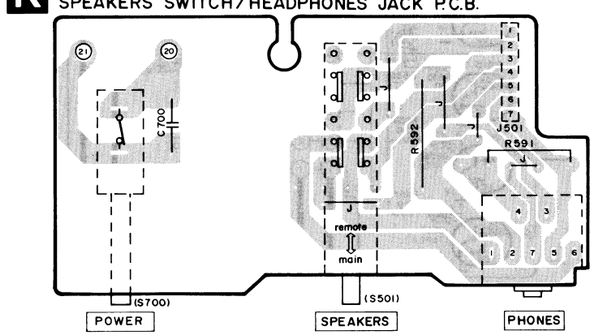


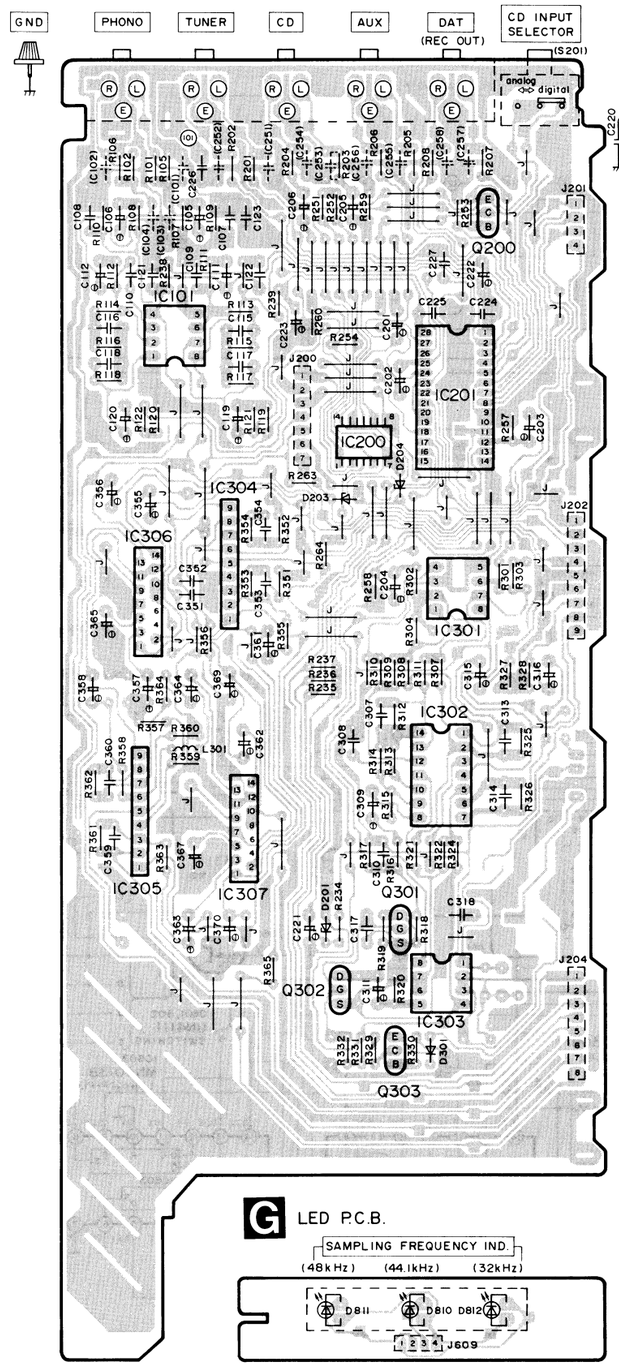

SYNCHRO REC
(TURNTABLE)
(CD)
Q524 Q523
L AMP/ POWER AMP/ CURRENT DRIVE AMP/
CE P.C.B.
Q702
Q705
Q701
RLY501
IC701
Q500
Q703
Q704
IC702
J603
J604

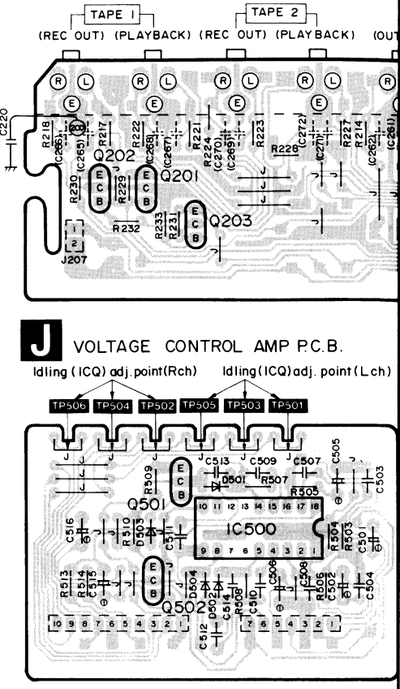

SPEAKERS
(MAIN 8~16Ω)
(SURROUND 8~16Ω)
(REMOTE 8~16Ω)
R ch
L ch
L SPEAKER TERMINAL P.C.B.


AC OUTLET
(UNSWITCHED)
AC IN
(220V 50/60Hz)
F2 T2A
F1 T2A
M AC IN/AC OUTLET TERMINAL P.C.B.

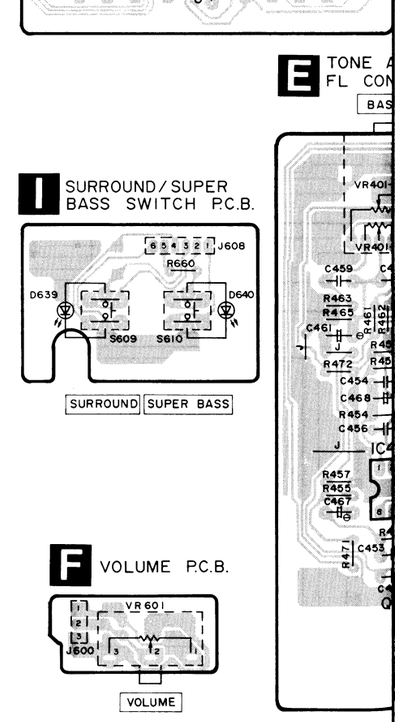

T700
POWER TRANSFORMER
J700


K POWER SWITCH/
SPEAKERS SWITCH/HEADPHONES JACK P.C.B.
remote
main
(S700)
(S501)
POWER
SPEAKERS
PHONES


B PHONO EQ. AMP/ATTENUATOR/SRROUND AMP/
INPUT SELECTOR P.C.B.
GND
PHONO
TUNER
CD
AUX
DAT
(REC OUT)
CD INPUT SELECTOR
(S201)
analog
digital
IC101
IC200
IC201
IC304
IC306
IC301
IC302
IC305
IC307
IC303
Q200
Q201
Q202
Q203
Q301
Q302
Q303


C INPUT/OUTPUT TERMINAL P.C.B.
TAPE 1
TAPE 2
(REC OUT) (PLAYBACK)
(REC OUT) (PLAYBACK)

J VOLTAGE CONTROL AMP P.C.B.
Idling (ICQ) adj. point (Rch)
Idling (ICQ) adj. point (Lch)
TP506
TP504
TP502
TP505
TP503
TP501
Q501
Q502
IC500


E TONE A
FL CON
BAS

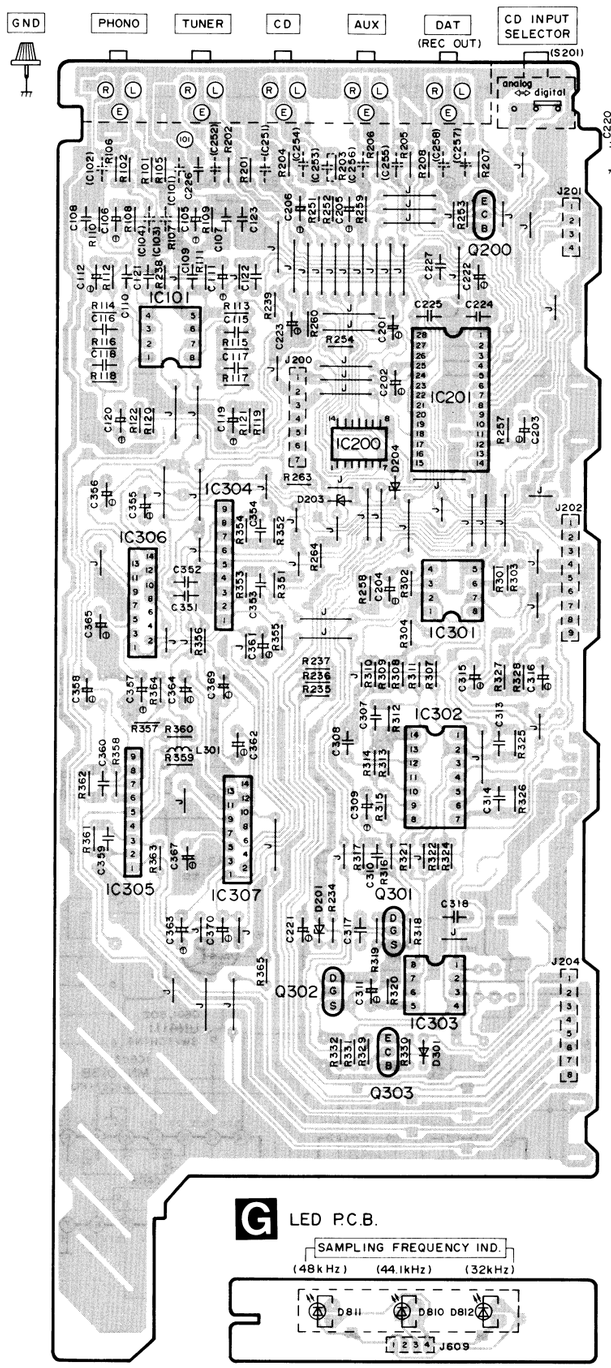
I SURROUND/SUPER
BASS SWITCH P.C.B.
D639
D640
S609
S610
SURROUND
SUPER BASS

G LED P.C.B.
SAMPLING FREQUENCY IND.
(48kHz)
(44.1kHz)
(32kHz)
D811
D810
D812
J609

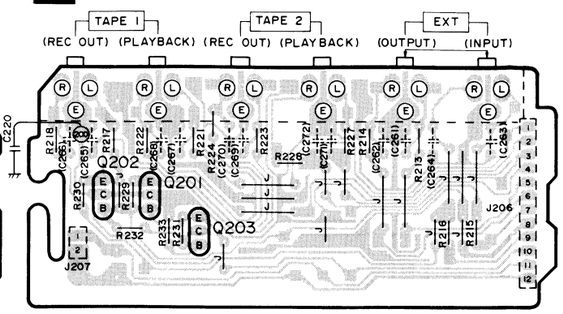
F VOLUME P.C.B.
VR601
J600
VOLUME

13 14 15 16 17 18 19 20 21 22 23 24 25 26

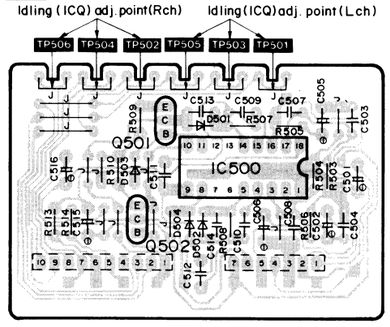
B PHONO EQ. AMP/ATTENUATOR/SRROUND AMP/ INPUT SELECTOR P.C.B.



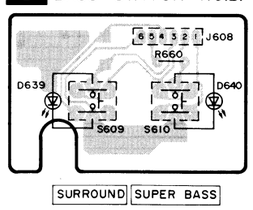
C INPUT/OUTPUT TERMINAL P.C.B.



J VOLTAGE CONTROL AMP P.C.B.

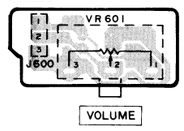


I SURROUND/SUPER BASS SWITCH P.C.B.

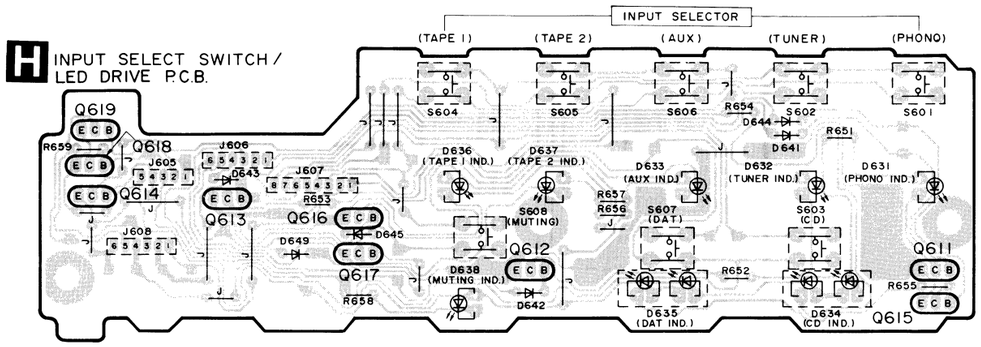


G LED P.C.B.

F VOLUME P.C.B.



H INPUT SELECT SWITCH/ LED DRIVE P.C.B.

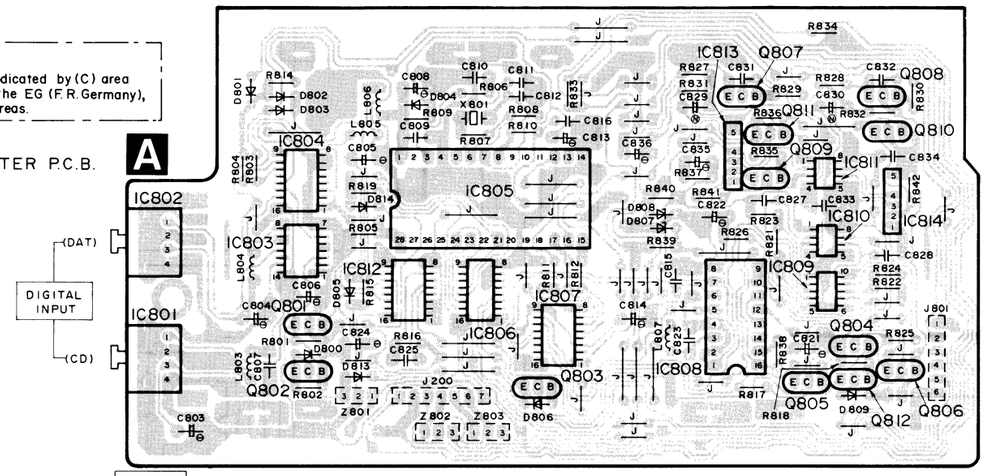


Note:

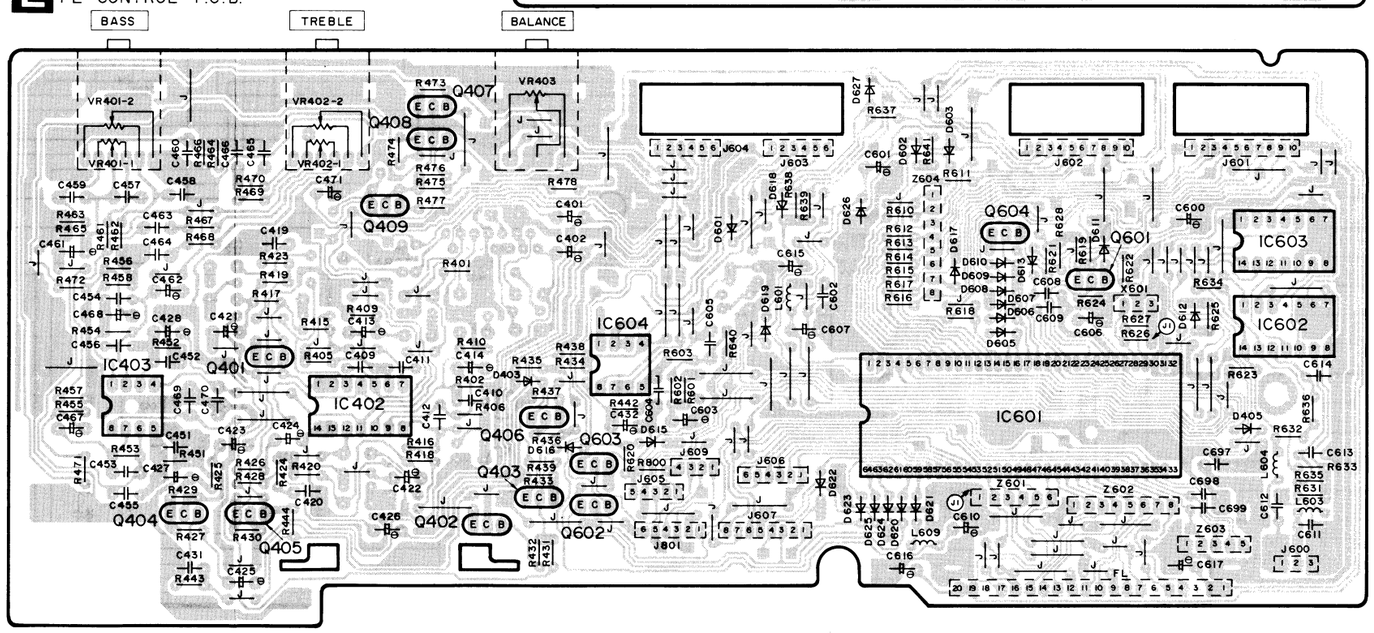
--|+-- (C)

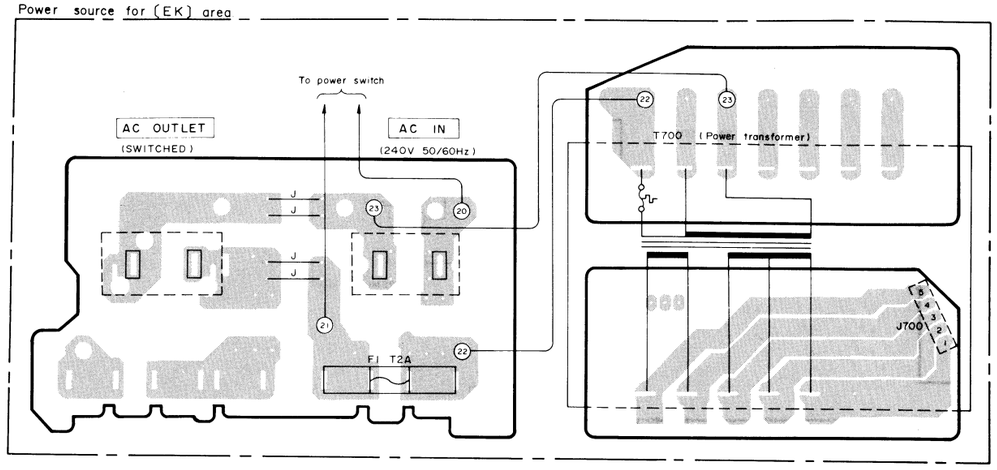
Capacitors indicated by (C) area used only in the EG (F.R.Germany), EI (Italy) areas.

D/A CONVERTER P.C.B.

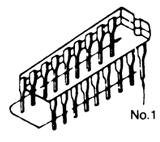
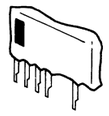
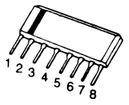
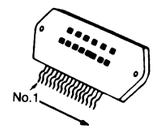
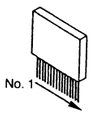
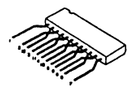
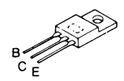
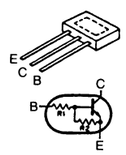
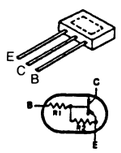
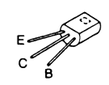
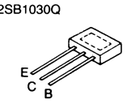
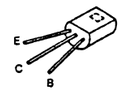
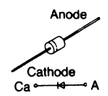
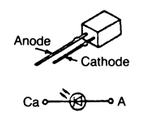
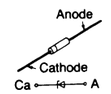


E TONE AMP/SUPER BASS AMP/ FL CONTROL P.C.B.

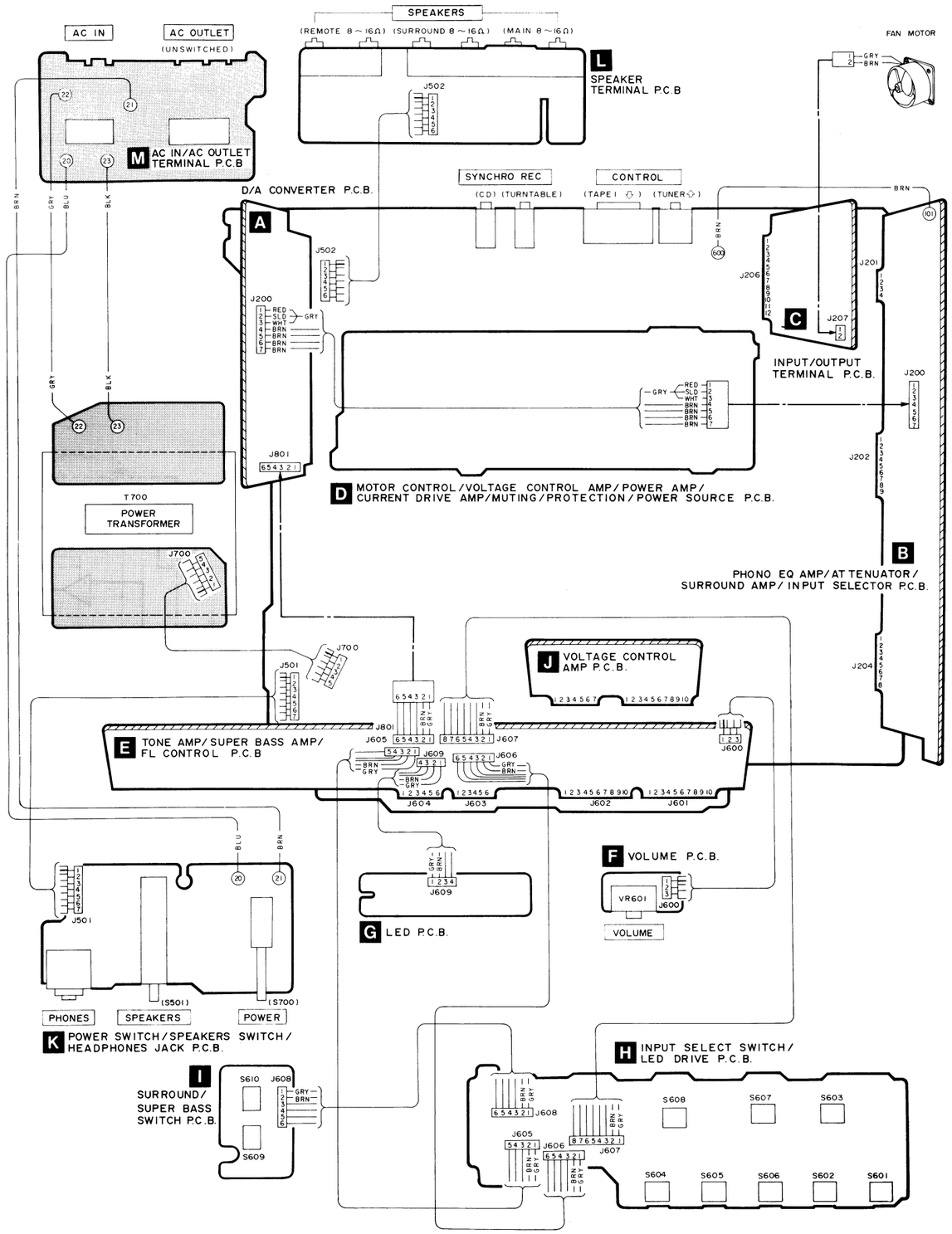




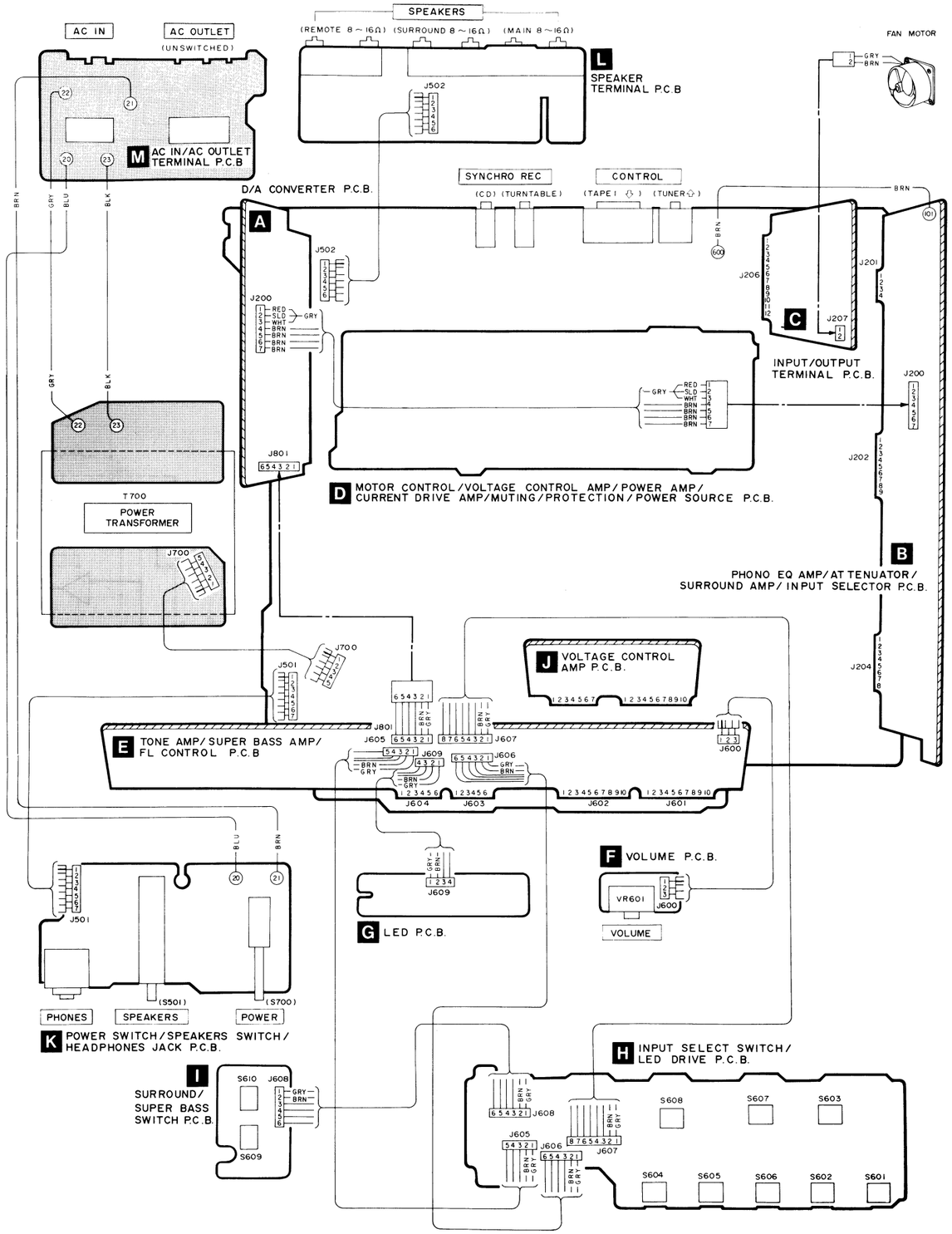
■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

AN6552F AN6558F TC4066BF M5238P SVILM833M SVIBA4560F	8 pin	TC74HC4053AF TC74HC123F DN74LS145S SM5807ES PCM56P-J	16 pin		SVIH8DN2041B 	AN6557 
MN6636S	10 pin	TC9164N YM3623B	28 pin			
AN6554 MN4030B MN4013B TC74HCU04F	14 pin	M50754-411SP	64 pin			
SVI4004	24PIN	AN78M05R	4 pin	M5113L	2SD1265 2SB941QR	2SK301
						 1. DRAIN 2. GATE 3. SOURCE
UN4211		UN4111		2SA992	2SC3311A-Q 2SA1309AQS 2SD1450RS 2SD1330R 2SB1030Q	2SB621A-R
						
MA167 MA29WA MA165 MA700A 		SVDS3V40 		LN846RP-C LN873RP-LS 	MA4051, MA4120 MA4082M, MA4100M MA4140M, MA4300M	

■ WIRING CONNECTION DIAGRAM



■ WIRING CONNECTION DIAGRAM



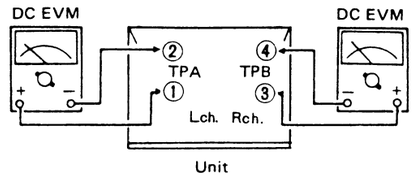
■ MEASURMENTS AND ADJUSTMENTS

Control positions and equipment used.

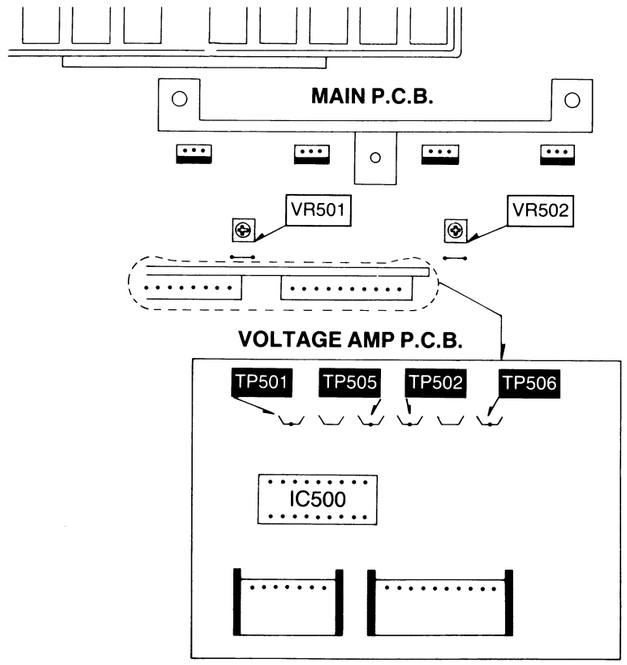
- Volume knob.....∞ (Minimum)
- Main speaker selector.....off
- Remote speaker selector.....off
- DC electronic voltmeter(EVM)

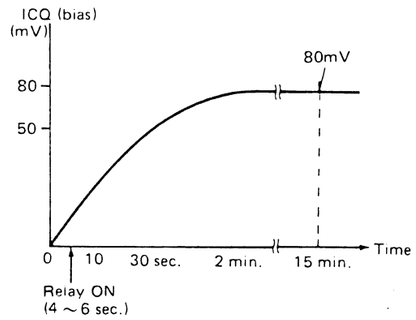
VOLTAGE CONTROL(V)AMP.IDLING(ICQ) ADJUSTMENT

1. Test equipment connection is shown in figure. (Connect the DC EVM on both channels.)
2. Completely turn the (V) amp. adjusting volumes (**VR501 , VR502**) counter-clockwise.
3. Turn ON the set when it is cold, and 15 sec.later, adjust **VR501** and **VR502** so that the voltage is **50mV.** Also, check that the voltage is **60 ~ 85mV** (standard : **80mV)** after lapse of **10 - 15 minutes.** (Below **85mV** after lapse of **60 min.)**



TPA = ①TP501 , TPB = ③TP502
②TP505 ④TP506





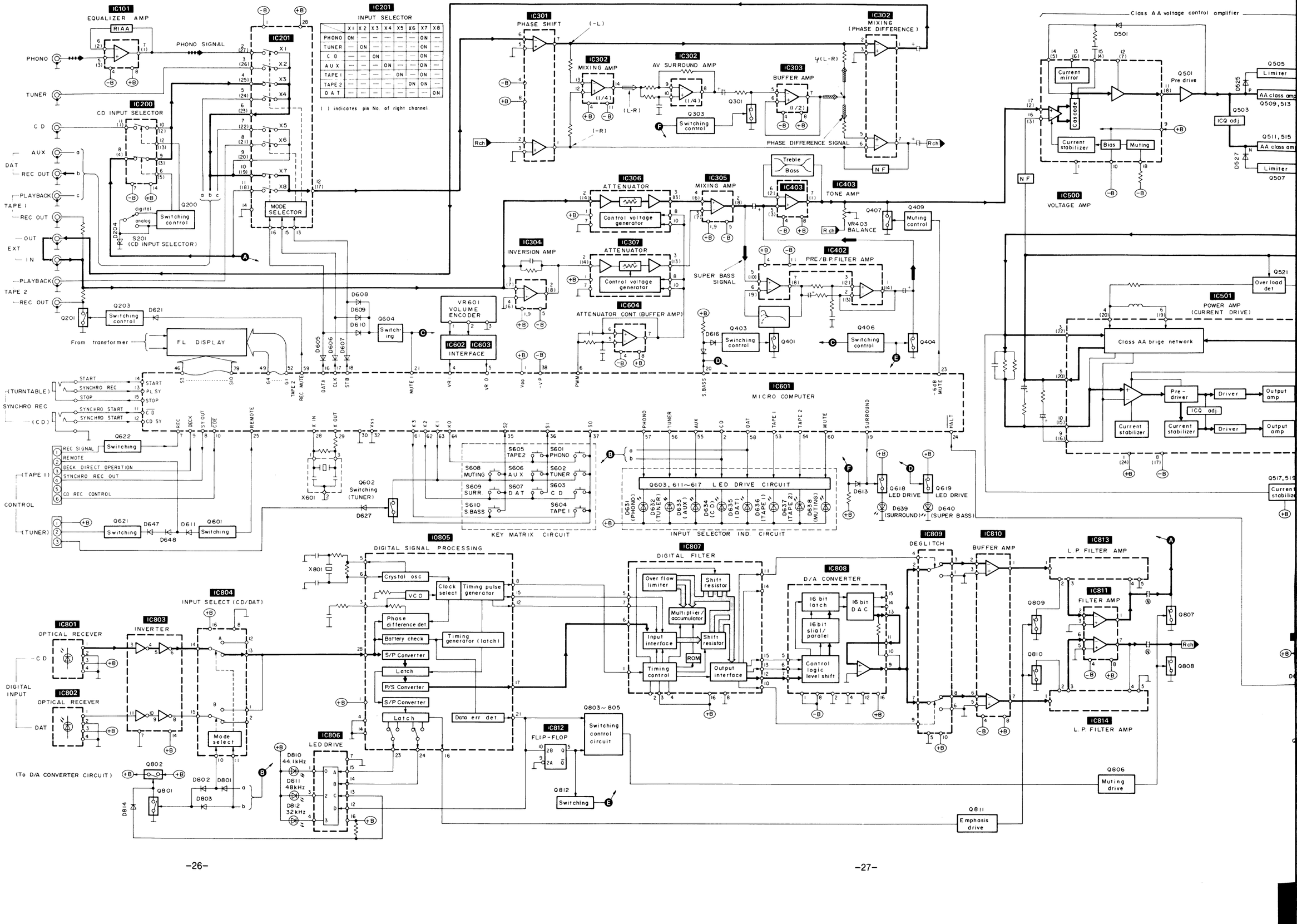
●Test point

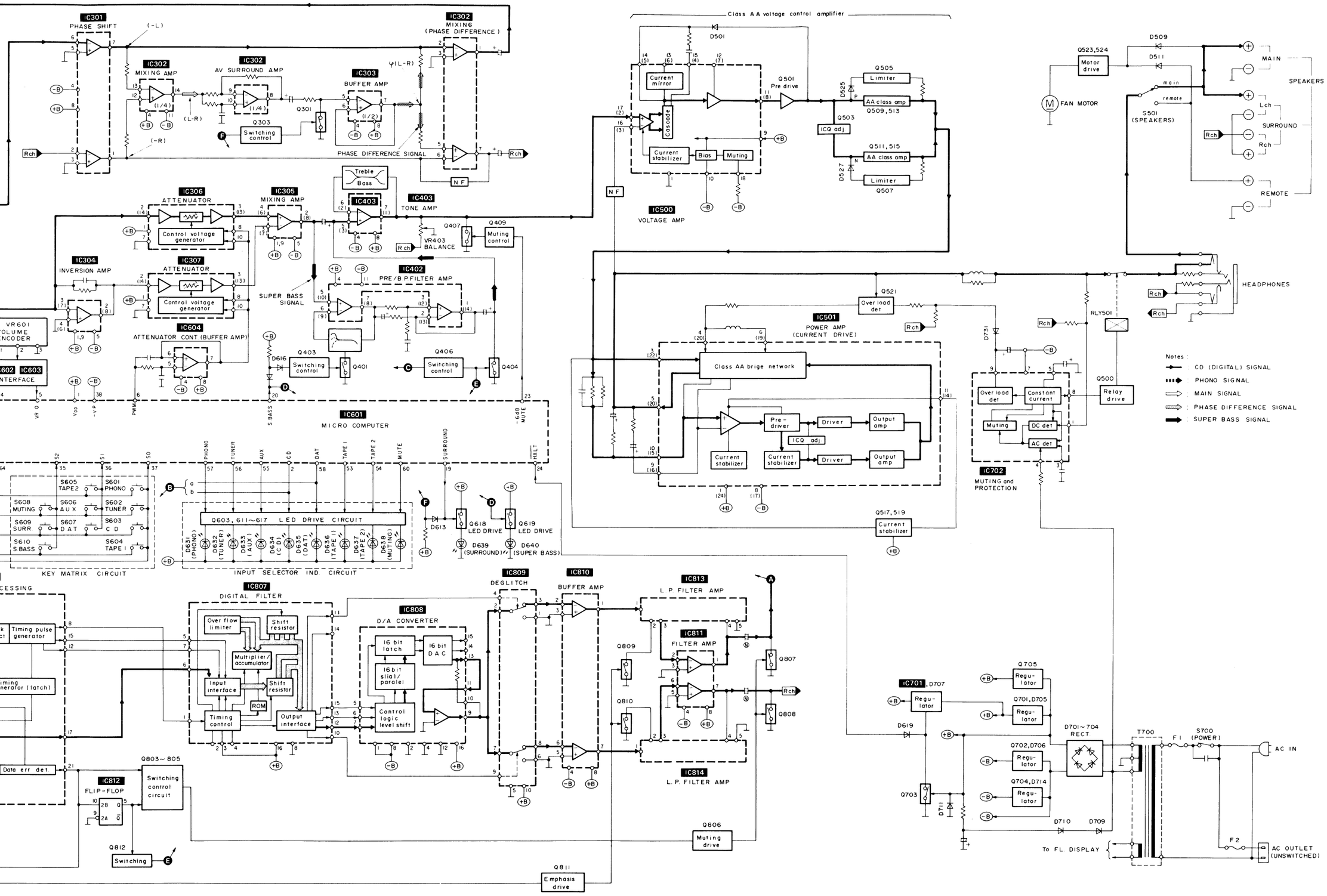
TP501...L ch ⊕ Voltage control amp I_{CQ} adj.
TP505...L ch ⊖ Voltage control amp I_{CQ} adj.
TP502...R ch ⊕ Voltage control amp I_{CQ} adj.
TP506...R ch ⊖ Voltage control amp I_{CQ} adj.

●Adjustment VR

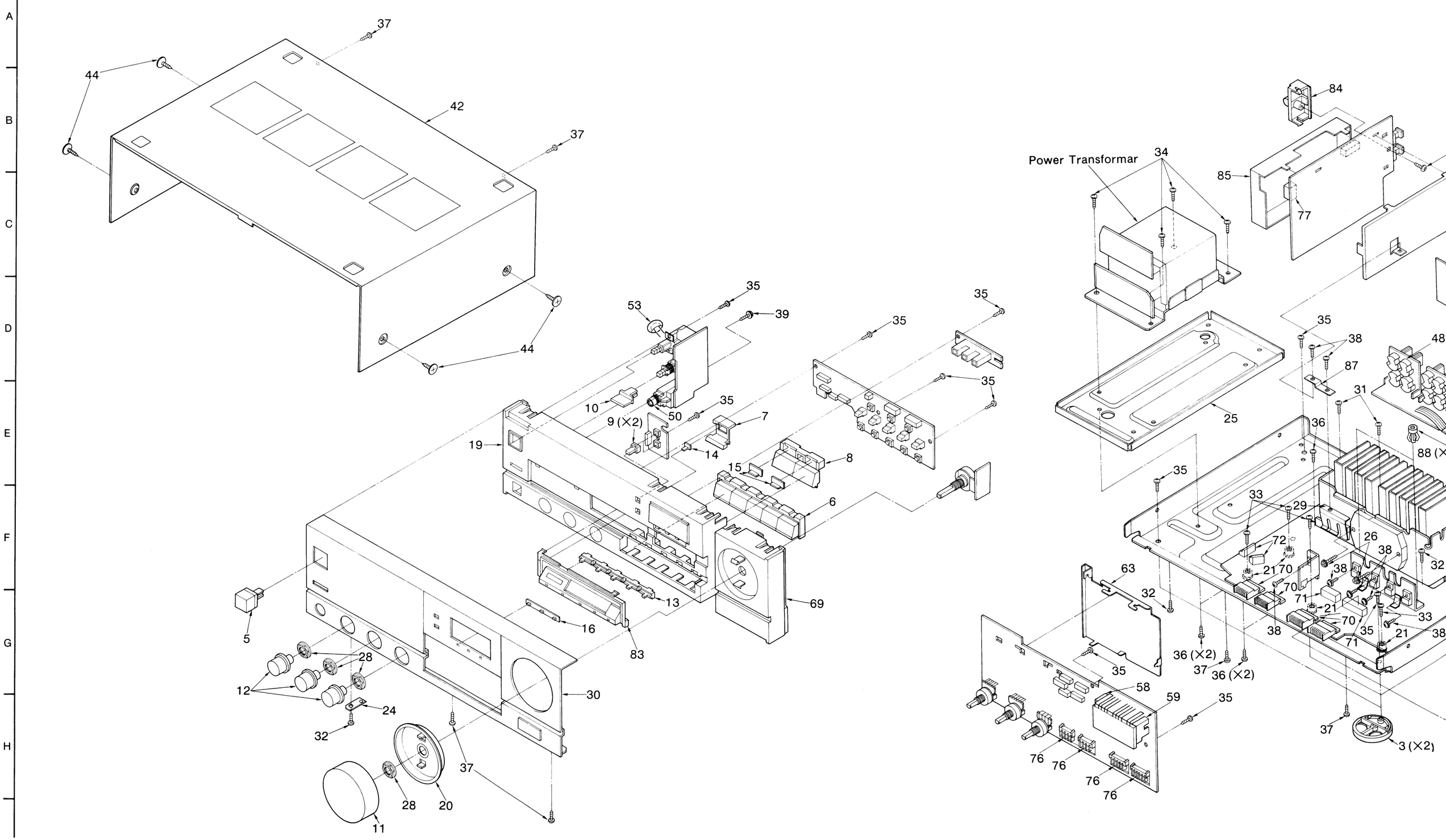
VR501...L ch Voltage control amp I_{CQ} adj.
VR502...R ch Voltage control amp I_{CQ} adj.

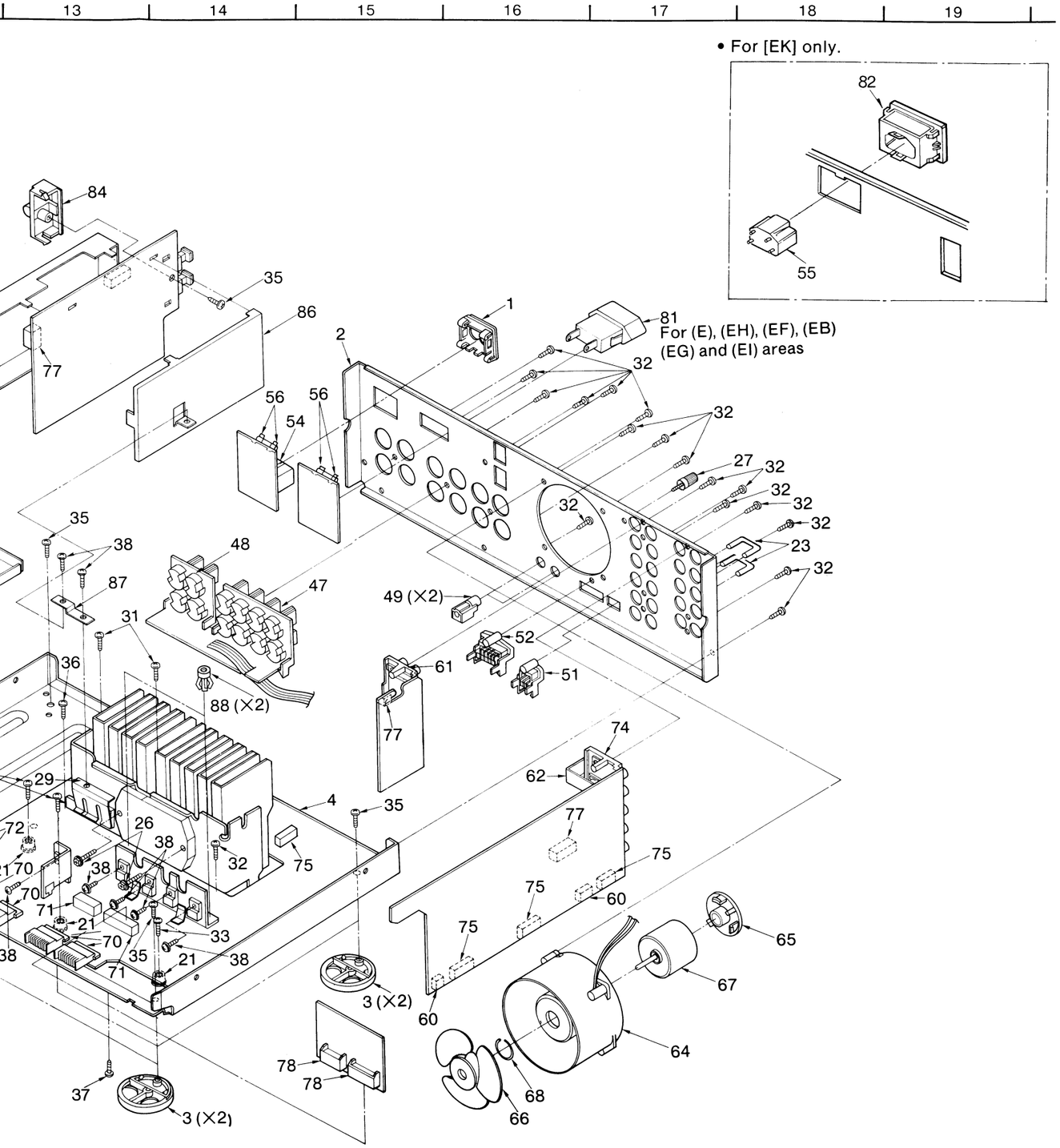
■ BLOCK DIAGRAM




IC301
PHASE SHIFT
IC302
MIXING
(PHASE DIFFERENCE)
IC302
MIXING AMP
IC302
AV SURROUND AMP
IC303
BUFFER AMP
Q301
Q303
Switching control
PHASE DIFFERENCE SIGNAL
N F
IC306
ATTENUATOR
Control voltage generator
IC305
MIXING AMP
IC403
TONE AMP
Treble
Bass
VR403
BALANCE
Q407
Q409
Muting control
IC304
INVERSION AMP
IC307
ATTENUATOR
IC604
ATTENUATOR CONT. (BUFFER AMP)
SUPER BASS SIGNAL
IC402
PRE/B.P.FILTER AMP
Q403
Q401
Q406
Q404
D616
IC601
MICRO COMPUTER
VR601
VOLUME
ENCODER
IC602
IC603
INTERFACE
Class A A voltage control amplifier
D501
Current mirror
Cascode
Current stabilizer
Bias
Muting
Q501
Pre drive
Q505
Limiter
AA class amp
Q509,513
Q503
ICQ adj
Q511,515
AA class amp
Limiter
Q507
D525
D527
IC500
VOLTAGE AMP
Q523,524
Motor drive
FAN MOTOR
D509
D511
main
remote
S501
(SPEAKERS)
MAIN
SPEAKERS
Lch
SURROUND
Rch
REMOTE
HEADPHONES
Q521
Over load det
IC501
POWER AMP
(CURRENT DRIVE)
Class AA brige network
Pre-driver
Driver
Output amp
ICQ adj
Current stabilizer
RLY501
Q500
Relay drive
D731
Over load det
Constant current
Muting
DC det
AC det
IC702
MUTING and
PROTECTION
Notes :
CD (DIGITAL) SIGNAL
PHONO SIGNAL
MAIN SIGNAL
PHASE DIFFERENCE SIGNAL
SUPER BASS SIGNAL
S605 TAPE2
S601 PHONO
S608 MUTING
S606 AUX
S602 TUNER
S609 SURR
S607 DAT
S603 CD
S610 S.BASS
S604 TAPE 1
KEY MATRIX CIRCUIT
Q603, 611~617 LED DRIVE CIRCUIT
D631 (PHONO)
D632 (TUNER)
D633 (AUX)
D634 (CD)
D635 (DAT)
D636 (TAPE 1)
D637 (TAPE 2)
D638 (MUTING)
INPUT SELECTOR IND. CIRCUIT
D613
Q618 LED DRIVE
Q619 LED DRIVE
D639 (SURROUND)
D640 (SUPER BASS)
Q517,519
Current stabilizer
IC807
DIGITAL FILTER
Over flow limiter
Shift resistor
Multiplier/ accumulator
Input interface
Shift resistor
ROM
Timing control
Output interface
IC808
D/A CONVERTER
16 bit latch
16 bit D A C
16 bit sial/ parallel
Control logic level shift
IC809
DEGLITCH
IC810
BUFFER AMP
IC813
L.P. FILTER AMP
IC811
FILTER AMP
IC814
L.P. FILTER AMP
Q809
Q810
Q807
Q808
Timing pulse generator
Timing generator (latch)
Data err det.
IC812
FLIP-FLOP
Q803~805
Switching control circuit
Q812
Switching
Q806
Muting drive
Q811
Emphasis drive
IC701
D707
Regu-lator
Q705
Q701,D705
Q702,D706
Q704,D714
D701~704
RECT.
D619
Q703
D711
D710
D709
To FL DISPLAY
T700
F1
S700
(POWER)
AC IN
F2
AC OUTLET
(UNSWITCHED)

■ EXPLODED VIEW





■ REPLACEMENT PARTS LIST

Notes : * Important safety notice :
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)
Parts without these indications can be used for all areas.

•CABINET PARTS LIST

Ref. No.	Part No.	Description
CABINET AND CHASSIS		
1	SJS9231A	AC INLET COVER
2	SGP7170-6A	REAR PANEL
(E, EH, EF, EB)		
(EI)		
2	SGP7170-6C	REAR PANEL
(EG)		
2	SGP7170-7A	REAR PANEL
(EK)		
3	SKL307	FOOT
4	SKUUX990D-KE	BOTTOM BOARD
(E)		
4	SKUUX990D-KH	BOTTOM BOARD
(EH, EF, EB)		
(EG, EI)		
4	SKUUX990D-KK	BOTTOM BOARD
(EK)		
5	SBC666-1	BUTTON, POWER
6	SBC983B	BUTTON, SELECTOR
7	SBC1023	BUTTON, MUTING
8	SBC1024A	BUTTON, DIGITAL
9	SBC1025	BUTTON, BASS
10	SBC928	BUTTON, SPEAKER
11	SBN1224	KNOB, VOLUME
12	SBN1235	KNOB, TONE
13	SDL97	SMOKE PLATE
14	SDL98	SMOKE PLATE
15	SDL99	SMOKE PLATE
16	SDL100	SMOKE SLATE
19	SGXUX950-KE1	FRONT GRILLE
20	SGX9036	ORNAMENT
21	SHE187-2	HOLDER
23	SJP9205-2Y	SHORTING PIN
24	SMC1274	BRACKET
25	SMN2040	ANGLE
26	SNE2118	SCREW
27	SNE2123	SCREW
28	SNE4021-1	NUT
29	SUS832	SPRING
30	SGWUX990D-KE	FRONT PANEL
31	XTB3+8FFR1	SCREW
32	XTBS3+8JFZ1	SCREW
33	XTB3+20J	SCREW
34	XTB3+6FFZ	SCREW
35	XTB3+8G	SCREW
36	XTB3+8J	SCREW
37	XTB3+8JFZ	SCREW
38	XTW3+8T	SCREW
39	XTWS3+8T	SCREW
42	SKC2070K163	CABINET BODY
44	SNE2129-1	SCREW
47	SJF4818-1	TERMINAL BOARD
48	SJF4442-1	TERMINAL BOARD
49	SJJ141	M3 JACK
50	SJJ71E	JACK
51	SJS306	SOCKET
52	SJS804	SOCKET(8P)
53	SMX897	COVER
54	SJS9231-1B	AC INLET
55	SJS9332B	AC OUTLET
(EK)		
56	SJT388	FUSE HOLDER
58	SMN2056-1	BRACKET
59	SMN2056	BRACKET
60	SMN2043	ANGLE
61	SJF3062-13N	TERMINAL BOARD
62	SMC6453	SHIELD PLATE
63	SMC6441	SHIELD PLATE
64	SME95	COVER
65	SME97-1	COVER
66	SHE143	FAN
67	MMN6C2RKMS	DC MOTOR
68	SUS271	SPRING
69	SGXUX950-KE2	FRONT GRILLE
70	SJS50680WL	CONNECTOR(6P)
70	SJS51080WL	CONNECTOR(10P)
71	SJS50778JQ	CONNECTOR (7P)
71	SJS51078JQ	CONNECTOR(10P)
72	SJT30543-V	CONNECTOR(5P)
72	SJT30740LX-V	CONNECTOR(7P)
74	SJF3062-22N	TERMINAL
75	SJT30439MB	CONNECTOR (4P)
75	SJT30839MB	CONNECTOR(8P)
75	SJT30939MB	CONNECTOR(9P)
75	SJT31239MB	CONNECTOR (12P)
76	SJT30647WL	CONNECTOR(6P)
76	SJT31047WL	CONNECTOR(10P)
77	SJT3213	CONNECTOR(2P)
77	SJT3613	CONNECTOR(6P)
77	SJT3709	CONNECTOR(7-P)
78	SJT30745JQ	CONNECTOR (7P)
78	SJT31045JQ	CONNECTOR(10P)
81	SJS9225	AC OUTLET
(E, EH, EF, EB)		
(EG, EI)		
82	SJS9332A	AC OUTLET COVER
(EK)		
83	SGX7977	ORNAMENT
84	SGX7967	ORNAMENT
85	SMC6459	SHIELD PLATE
86	SMC6460	SHIELD PLATE
87	SUW3124	SHIELD PLATE
88	SHR9094	LATCH

•PACKING PARTS LIST

Ref. No.	Part No.	Description
PACKING MATERIAL		
P1	SPP753	PROTECTION COVER
P2	SPG6356	PACKING CASE
(EK, E, EH, EB)		
(EG, EI)		
P2	SPG6357	PACKING CASE
(EF)		
P3	SPS5182	PAD
P4	SPS5183	PAD
P5	SPS5184	PAD
P6	XZB10X30A02	PROTECTION COVER
ACCESSORIES		
A2	SFDAC05E03	POWER CORD
(E, EH, EF, EB)		
(EG, EI)		
A2	SJA188	POWER CORD
(EK)		
OPERATING INSTRUCTIONS		
A1	SQF13294	INSTRUCTION BOOK
(EI)		
A1	SQF13302	INSTRUCTION BOOK
(E, EH, EB)		
A1	SQF13303	INSTRUCTION BOOK
(EK)		
A1	SQF13304	INSTRUCTION BOOK
(EF)		
A1	SQF13305	INSTRUCTION BOOK
(EG)		

●ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description
INTEGRATED CIRCUITS		
IC101	AN6558F	I.C. PHONO EQ AMP
IC200	TC4066BF	INTEGRATED CIRCUIT. CD INPUT SE
IC201	TC9164N	I.C. INPUT SEL
IC301	M5238P	I.C. PHASE SHIFT
IC302	AN6554F	I.C. MIXING AMP
IC303	AN6558F	I.C. BUFFER AMP
IC304	AN6557F	I.C. BUFFER AMP
IC305	AN6557F	I.C. MIXING AMP
IC306	M51131L	I.C. ATTENUATOR
IC307	M51131L	I.C. ATTENUATOR
IC402	AN6554F	I.C. PRE AMP
IC403	AN6558F	I.C. TONE AMP
IC500	AN7062N	I.C. VOLTAGE AMP
IC501	SVI4004	I.C., POWER AMP
IC601	M50754-411SP	I.C. MICRO COM.
IC602	MN4030B	I.C., LOGIC
IC603	MN4013B	I.C. LOGIC
IC604	AN6552F	I.C. BUFFER AMP
IC701	AN78M05R	I.C. REGULATOR
IC702	AN7073	I.C. PROTECTION/MUT
IC801	SVITORX172	I.C. OPTICAL REC.
IC802	SVITORX172	I.C. OPTICAL REC.
IC803	TC74HCU04F	I.C. INVERTER
IC804	TC74HC4053AF	I.C., DIGITAL INPUT
IC805	YM3623B	I.C. DIGITAL SIGNAL
IC806	DN74LS145S	INTEGRATED CIRCUIT. LED DRIVE
IC807	SM5807ES	I.C. DIGITAL FILTER
IC808	PCM56P-J	I.C. D/A CONVERTER
IC809	MN6636S	I.C. DEGLITCH
IC810	SVILM833M	I.C. BUFFER AMP.
IC811	SVIBA4560F	I.C. EMPHASIS DRIVE
IC812	TC74HC123F	I.C. FLIP-FLOP
IC813	SVIH8DN2041B	I.C. LOW PASS FILTER
IC814	SVIH8DN2041B	I.C. LOW PASS FILTER
TRANSISTORS		
Q200	2SC3311A-Q	TRANSISTOR
Q201	2SD1450RS	TRANSISTOR
Q202	2SD1450RS	TRANSISTOR
Q203	2SA1309AQS	TRANSISTOR
Q301	2SK301	TRANSISTOR
Q302	2SK301	TRANSISTOR
Q303	2SA1309AQS	TRANSISTOR
Q401	2SD1330R	TRANSISTOR
Q402	2SD1330R	TRANSISTOR
Q403	2SA1309AQS	TRANSISTOR
Q404	2SD1330R	TRANSISTOR
Q405	2SD1330R	TRANSISTOR
Q406	2SA1309AQS	TRANSISTOR
Q407	2SD1330R	TRANSISTOR
Q408	2SD1330R	TRANSISTOR
Q409	2SA1309AQS	TRANSISTOR
Q500	2SA992E	TRANSISTOR
Q501	2SA1123R	TRANSISTOR
Q502	2SA1123R	TRANSISTOR
Q503	2SC1685-QNC	TRANSISTOR
Q504	2SC1685-QNC	TRANSISTOR
Q505	2SC3311A-Q	TRANSISTOR
Q506	2SC3311A-Q	TRANSISTOR
Q507	2SA1309AQS	TRANSISTOR
Q508	2SA1309AQS	TRANSISTOR
Q509	2SC2631-Q	TRANSISTOR
Q510	2SC2631-Q	TRANSISTOR
Q511	2SA1123R	TRANSISTOR
Q512	2SA1123R	TRANSISTOR
Q513	2SC3298AY	TRANSISTOR
Q514	2SC3298AY	TRANSISTOR
Q515	2SA1306AY	TRANSISTOR
Q516	2SA1306AY	TRANSISTOR
Q517	2SC2631-Q	TRANSISTOR
Q518	2SC2631-Q	TRANSISTOR
Q519	2SA1123R	TRANSISTOR
Q520	2SA1123R	TRANSISTOR
Q521	2SA992E	TRANSISTOR
Q522	2SA992E	TRANSISTOR
Q523	2SC3311A-Q	TRANSISTOR
Q524	2SA1309AQS	TRANSISTOR
Q601	UN4111	TRANSISTOR
Q602	UN4111	TRANSISTOR
Q603	UN4211	TRANSISTOR
Q604	2SC3311A-Q	TRANSISTOR
Q611	UN4211	TRANSISTOR
Q612	UN4211	TRANSISTOR
Q613	UN4211	TRANSISTOR
Q614	UN4211	TRANSISTOR
Q615	UN4211	TRANSISTOR
Q616	UN4211	TRANSISTOR
Q617	UN4211	TRANSISTOR
Q618	UN4111	TRANSISTOR
Q619	UN4111	TRANSISTOR
Q621	2SC3311A-Q	TRANSISTOR
Q622	UN4211	TRANSISTOR
Q701	2SD1265-P	TRANSISTOR
Q702	2SB941PQR	TRANSISTOR
Q703	UN4211	TRANSISTOR
Q704	2SB621A-R	TRANSISTOR
Q705	2SD1265-P	TRANSISTOR
Q801	UN4211	TRANSISTOR
Q802	2SB1030Q	TRANSISTOR
Q803	2SA1309AQS	TRANSISTOR
Q804	UN4211	TRANSISTOR
Q805	UN4211	TRANSISTOR
Q806	UN4111	TRANSISTOR
Q807	2SD1330R	TRANSISTOR
Q808	2SD1330R	TRANSISTOR
Q809	2SD1330R	TRANSISTOR
Q810	2SD1330R	TRANSISTOR
Q811	UN4111	TRANSISTOR
Q812	2SA1309AQS	TRANSISTOR
DIODES		
D201	MA4051-M	DIODE
D203	MA4082M	DIODE
D204	MA4082M	DIODE
D301	MA165	DIODE
D403	MA165	DIODE
D405	MA165	DIODE
D501	MA167	DIODE
D502	MA167	DIODE
D503	MA29WA	DIODE
D504	MA29WA	DIODE
D505	MA4120	DIODE
D506	MA4120	DIODE
D507	MA165	DIODE
D509	MA167	DIODE
D510	MA167	DIODE
D511	MA167	DIODE
D512	MA167	DIODE
D525	MA165	DIODE
D526	MA165	DIODE
D527	MA165	DIODE
D528	MA165	DIODE
D529	MA4062-M	DIODE
D530	MA4062-M	DIODE
D531	MA165	DIODE
D532	MA165	DIODE
D575	MA29WA	DIODE
D601	MA165	DIODE
D602	MA165	DIODE
D603	MA165	DIODE
D605	MA165	DIODE
D606	MA165	DIODE
D607	MA165	DIODE
D608	MA700A	DIODE
D609	MA700A	DIODE
D610	MA700A	DIODE
D611	MA165	DIODE
D612	MA165	DIODE
D613	MA165	DIODE
D615	MA165	DIODE
D616	MA165	DIODE
D617	MA165	DIODE
D618	MA4100M	DIODE
D619	MA165	DIODE
D620	MA165	DIODE
D621	MA165	DIODE
D622	MA165	DIODE
D623	MA165	DIODE
D624	MA165	DIODE
D625	MA165	DIODE
D626	MA165	DIODE
D627	MA165	DIODE
D631	LN846RP-C	L.E.D
D632	LN846RP-C	L.E.D
D633	LN846RP-C	L.E.D
D634	LN0202RP2	DIODE, GAASP
D635	LN0202RP2	DIODE, GAASP
D636	LN846RP-C	L.E.D
D637	LN846RP-C	L.E.D
D638	LN873RP-LS	DIODE, SI
D641	MA165	DIODE
D642	MA165	DIODE
D643	MA165	DIODE
D644	MA165	DIODE
D645	MA165	DIODE
D646	MA165	DIODE
D647	MA165	DIODE
D648	MA165	DIODE
D649	MA165	DIODE
D701	SVDS3V40	RECTIFIER
D702	SVDS3V40	RECTIFIER
D703	SVDS3V40	RECTIFIER
D704	SVDS3V40	RECTIFIER
D705	MA4140-M	DIODE
D706	MA4140-M	DIODE
D707	MA29WA	DIODE
D709	MA167	DIODE
D710	MA167	DIODE
D711	MA165	DIODE
D714	MA4300M	DIODE
D731	MA165	DIODE
D800	MA165	DIODE
D801	MA165	DIODE
D802	MA165	DIODE
D803	MA165	DIODE
D804	MA165	DIODE
D805	MA165	DIODE
D806	MA29WA	DIODE
D807	MA4051-M	DIODE
D808	MA4051-M	DIODE
D809	MA165	DIODE
D810	LN038417P	DIODE ASSY
D811	LN038417P	DIODE ASSY
D812	LN038417P	DIODE ASSY
D813	MA29WA	DIODE
D814	MA700A	DIODE
VARIABLE RESISTORS		
VR401	EWC2XAF20C15	V.R. BASS
VR402	EWC2XAF20C15	V.R. TREBLE
VR403	EWHFDAF20G15	V.R. BALANCE
VR501	EVND4AA00B52	V.R. 500Ω(B). IDLING ADJ.(LCH)
VR502	EVND4AA00B52	V.R. 500Ω(B). IDLING ADJ.(RCH)
VR601	EVQWX2F2045B	V.R., VOLUME ENCODER
THERMISTORS AND VARISTORS		
TH501	ERTD2ZHK104S	THERMISTOR
TH502	ERTD2ZHK104S	THERMISTOR
COILS AND TRANSFORMERS		
L301	ELEXT100KA	COIL
L501	SLQY07G-40	CHOKE COIL
L502	SLQY07G-40	CHOKE COIL
L503	SLQY07G-40	CHOKE COIL
L504	SLQY07G-40	CHOKE COIL
L505 (EG, EI)	SLQY07G-40	CHOKE COIL
L506 (EG, EI)	SLQY07G-40	CHOKE COIL
L507 (EG, EI)	SLQY07G-40	CHOKE COIL
L508 (EG, EI)	SLQY07G-40	CHOKE COIL
L601	ELEXH101KA	COIL
L603	ELEXH330KA	COIL
L604	ELEXH330KA	COIL
L605	ELEPK1R2MA	COIL
L609	ELEXH330KA	COIL
L803	ELEXT470KA	COIL
L804	ELEXT470KA	COIL
L805	ELEXT470KA	COIL
L806	ELEXH101KA	COIL
L807	ELEXH101KA	COIL
T700 ⚠ (EK)	SLT5P288-W	POWER TRANSFORMER
T700 ⚠ (E, EH, EF, EB) (EG, EI)	SLT5P289-W	POWER TRANSFORMER
COMPONENT COMBINATIONS		
Z601	EXFP5331MW	COMBINATION PART
Z602	EXFP7331MW	COMPONENT COMBINATION
Z603	EXBF5E103J	COMBINATION PART
Z604	EXBF8E103J	10KΩ X 8
Z801	EXCEMT103DC	CNMBINATION COM
Z802	EXCEMT103DC	CNMBINATION COM
Z803	EXCEMT103DC	CNMBINATION COM
DISPLAYS		
FL1	SADFV217	DISPLAY TUBE
FUSES		
F1	XBA2C20TB0	FUSE 250V. T2A
F2	XBA2C20TB0	FUSE 250V. T2A
SWITCHES		
S201	SSS153	SW
S501	SSH1073	SW, SPEAKER
S601	EVQQB005R	SW
S602	EVQQB005R	SW
S603	EVQQB005R	SW
S604	EVQQB005R	SW
S605	EVQQB005R	SW
S606	EVQQB005R	SW
S607	EVQQB005R	SW
S608	EVQQB005R	SW
S609	EVQQLY07K	SPECIAL SW
S610	EVQQLY07K	SPECIAL SW
S700	SSH1071	SW, POWER
RELAYS		
RL501	SSY134	RELAY
OTHERS		
X601	EF0FC4004A4	CERAMIC FILTER
X801	SVQAT1923	CRYSTAL OSCILLATOR

■ FUNC

●IC805 (Y

Pin No.	Te N
1	VD
2	AD
3	VC
4	VS
5	XC
6	XI
7	KN
8	Ø
9	Ø
10	T
11	T2
12	BC
13	ST
14	VS
15	LA
16	D
17	D
18	W
19	D
20	D
21	E
22	S
23	S
24	S
25	S
26	S
27	S
28	D

■ FUNCTIONS OF IC TERMINALS

•IC805 (YM3623B) DIGITAL INTERFACE RECEPTION

(PU) terminals are "pulled up".

Pin No.	Terminal Name	I/O	Function
1	VDD1	——	This is the power connection terminal (+5 V).
2	ADJ	I	This terminal is for the adjustment of the VCO oscillation frequency, but it is not used in this unit.
3	VCO	I/O	This is the external condenser terminal for the VCO circuitry.
4	VSS2	——	This is the ground connection terminal of the system.
5	XO	O	This is the output terminal for the crystal vibrator (16.9344 MHz).
6	XI	I	This is the input terminal for the crystal vibrator.
7	KMODE	I (PU)	At a high level...the PLL circuitry is activated when the DIN terminal receives an input signal. Otherwise, the crystal vibrator is activated. At a low level...the crystal vibrator is activated, regardless of the DIN terminal input.
8	∅A	O	This terminal outputs a 16.9344-MHz frequency when the crystal vibrator functions. When the PLL circuitry is activated, the frequency varies according to the speed of input data of the DIN terminal (fs=about 16.9344 MHz when it is 44.2 kHz).
9	∅B	O	The frequency of this terminal is divided into a third of that of terminal ∅A when the crystal vibrator functions. When the PLL circuitry is activated, the frequency varies according to the speed of input data of the DIN terminal (fs=about 16.9344 when it is 44.2 kHz).
10	T1	I (PU)	This is the input terminal for checking the internal circuitry.
11	T2	I (PU)	This is the input terminal for checking the internal circuitry.
12	BCO	O	Used to output the time-clock signal from the DO terminal.
13	SYNC	O	Used to output the synchronization signal.
14	VSS1	O	This is the ground connection terminal of the system (+0 V).
15	L/R	O	At a high level...data on the left channel is output from the DO terminal. At a low level...data on the right channel is output from the DO terminal.
16	DEF	O	At a high level...input data is emphasized. At a low level...input data is not emphasized.
17	DO	O	Outputs 16-bit data.
18	WC	O	This is the terminal for checking data output to the DO terminal.
19	DIGR	O	This terminal outputs the signal for the right channel.
20	DIGL	O	This terminal outputs the signal for the left channel.
21	ERR	O	Error detection terminal. H=Error is found during parity check L=No errors
22	SEL	I (PU)	Input SEL: L / H Output S1: L — Copying is not possible; H — Copying is possible Output S2: L — DC (except DAT); H — DAT Output S1: H — L — The sampling frequency of the DIN input signal is 44.1 kHz; H — 48 kHz; H — 32 kHz; H — L — ——
23	S1	O	
24	S2	O	
25	SCK	O	Terminal for the clock-signal of the sub code output.
26	SSYNC	O	For the signal of the sub code.
27	SDO	O	For the output of sub code data.
28	DIN	I (PU)	For the input of data.

•IC601 (M50754-411SP)

Pin No.	I/O	Terminal Name	Function
1	I	V_{DD}	To be connected to a power supply.
2	O	LCD	This is the output terminal for the LED selector indicator of the CD player. At a "HI" level ..... the LED lights up.
3	——	CS2	For ground connection.
4	I	VR1	These are the terminals for the rotary encoder of the volume of VR601.
5		VR0	
6	O	PWM	This terminal outputs the signal for the control of the volume and balance
7	I	$\overline{REC}$	This is the terminal for the detection of recording on the deck.
8	O	SY OUT	This is the terminal for synchro recording on the deck.
9	I	$\overline{DECK}$	This is the terminal for direct operations on the deck.
10	I	CDE	Outputs the signal for the control of CD editing.
11	I	$\overline{CD}$	These are the terminals for the start of synchronization on the CD unit.
12		CD. SY.	
13	I	PL. SY.	These are the terminals for sync recording on the player.
14	O	PL. START	
15	O	PL. $\overline{STOP}$	
16	O	DATA	CLK: This terminal outputs the clock signal for reading serial data. DATA: This terminal outputs the serial data. STB: This terminal outputs the pulse for the control of the setting of the analog switch. The serial data inputted into IC201 is latched by the STB pulse and the switch is set to ON according to data.
17		CLK	
18		STB	
19	O	$\overline{SURR}$	Outputs the signal for the control of SURROUND. At a "LOW" level ..... SURROUND is ON.
20	O	S. $\overline{LOUD}$	Outputs the signal for the control of SUPER DYNAMIC SOUND. At a "LOW" level ..... SUPER DYNAMIC SOUND is ON.
21	O	$\overline{MUT}$ 1	Outputs the signal for the control of muting.
22	——	SYN OUT 2	Unused.
23	O	MUTE	Outputs the −6 dB signal for the control of attenuated muting.
24	I	$\overline{HALT}$	This is the terminal for the detection of power supply.
25	I	REMOTE	Inputs data from the remote controller.
26	——	CN VSS	For ground connection.
27	I	$\overline{RESET}$	This terminal inputs the reset signal.
28	I	X IN	These are the I/O terminals for the oscillating clock signal.
29	O	X OUT	
30	——	X_C IN	Unused.
31		X_C OUT	

Pin No.	I/O	Terminal Name	Function
32	——	V_{SS}	For ground connection.
33	——	NC	Unused.
35 ~ 37	O	S0 ~ S2	These are the key matrix terminals for input selection.
61 ~ 64	I	K0 ~ K3	
38	I	V_P	The signal which pulls down the voltage is inputted into this terminal.
39 ~ 46	O	S3 ~ S10	These terminals output the signals for the control of the multi-digital display.
49 ~ 52		G0 ~ G3	
53	O	L TAPE	Outputs the signal for the control of the TAPE LED. At a "HI" level ..... the LED lights up.
54	O	L VTR	Outputs the signal for the control of the VTR LED. At a "HI" level ..... the LED lights up.
55	O	L VD	Outputs the signal for the control of the VD LED. At a "HI" level ..... the LED lights up.
56	O	L TUNER	Outputs the signal for the control of the TUNER LED. At a "HI" level ..... the LED lights up.
57	O	L PHONO	Outputs the signal for the control of the PHONO LED. At a "HI" level ..... the LED lights up.
58	O	L DAT	Outputs the signal for the control of the DAT LED. At a "HI" level ..... the LED lights up.
59	O	VTR REC MUTE	Outputs the signal for muting the VTR recording.
60	O	L MUTE	Outputs the signal for the control of the MUTING LED. At a "HI" level ..... the LED lights up.

I \ O	35	36	37
61	SUPER DYNAMIC SOUND	——	TAPE
62	SURROUND	DAT	CD
63	MUTING	VD	TUNER
64	——	VTR	PHONO

●IC807 SM5807ES (Digital Filter)

Pin No.	Mark	I/O	Function
1	XT	I	Oscillator input circuit
2	XT	O	Oscillator output circuit
3	CKSL	I	CKSL = H: 16.9344MHz or 17.2872MHz crystal oscillator for XT or external input CKSL = L: 8.4672MHz or 8.6436MHz crystal oscillator for XT or external input
4	CKO	O	Clock output
5	LRCI	I	Synchronous clock input
6	DIN	I	Serial data input
7	BCKI	I	Serial input bit clock input
8	VSS	——	GND terminal (0V)

Pin No.	Mark	I/O	Function
9	SCSL	I	SCSL = H: System clock=192fs (fs: sampling frequency) SCSL = L: System clock=196fs (fs: sampling frequency)
10	DGR	O	Rch deglitch signal (176.4kHz)
11	DGL	O	Lch deglitch signal (176.4kHz)
12	DOUT	O	Serial data output
13	WDCO	O	Output control clock (352.8kHz)
14	LRCO	O	Output control clock (176.4kHz)
15	BCKO	O	Serial output bit clock (8.4672MHz or 8.6436MHz)
16	VDD	——	Power supply terminal

■ RESISTORS AND CAPACITORS

Notes : * Important safety notice :
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)
Parts without these indications can be used for all areas.

Numbering System of Resistor

Example:

ERD	25	F	J	102
Type	Wattage (1/4W)	Shape	Tolerance	Value (1KΩ)
ERX	2	AN	J	471
Type	Wattage (2W)	Shape	Tolerance	Value (470Ω)

Numbering System of Capacitor

Example:

ECKD	1H	102	Z	F
Type	Voltage (50V)	Value (0.001μF)	Tolerance	Peculiarity
ECEA	50	M	330	
Type	Voltage (50V)	Peciliarity	Value (33μF)	

● Capacity are in microfarads (μF) unless specified otherwise, P = Pico-farads (pF) F = Farads (F).
● Resistance are in ohms (Ω), unless specified otherwise, 1K = 1,000Ω, 1M = 1,000kΩ

Resistor Type	Wattage	Tolerance
ERD : Carbon	10 : 1/8W 12 : 1/2W	J : ±5%
ERG : Metal Oxide	14 : 1/4W 25 : 1/4W	F : ±1%
ERQ : Fuse Type Metal	1A : 1W 18 : 1/8W	G : ±2%
ERX : Metal Film	S2 : 1/4W S1 : 1/2W	J : ±5%
ERD L : Carbon (chip)	2F : 1/4W 50 : 1/2W	K : ±10%
ERO K : Metal Film (chip)	2A : 2W 3A : 3W	M : ±20%
ERC : Solid	6G : 1/10W 8G : 1/8W	
ERF : Incombustible Box-Shaped		
ERM : Wire-Wound		
RRJ : Cip Resistor		
ERJ : Cip Resistor		

Capacitor Type	Voltage	Tolerance
ECE : Electrolytic	0J : 6.3V 1A : 10V	K : ±10%
ECCD : Ceramic	1C : 16V 1E : 25V	M : ±20%
ECKD : Ceramic Capacitor	1H : 50V 1V : 35V	Z : +80 −20 %
ECQM : Poyester	50 : 50V 05 : 50V	J : ±5%
ECQP : Polypropylene	2H : 500V 2A : 100V	G : ±2%
ECG : Ceramic	1 : 100V 1J : 63V	F : ±1%
ECEA N : Non Polar Electrolytic	KC : 400V AC	C : ±0.25pF
QCU : Ceramic (Chip Type)	KC : 125V AC	D : ±0.5pF
ECUX : Ceramic (Chip Type)	(UL)	
ECF : Semiconductor		
EECW : Liquid electrolyte double layer capacitor		

Ref. No.	Part No.	Value.	Ref. No.	Part No.	Value.	Ref. No.	Part No.	Value.
RESISTORS(VALUE,WATTAGE)			R229	ERDS2TJ392	3.9K 1/4	R325	ERDS2TJ392	3.9K 1/4
R101	ERDS2TJ471	470 1/4	R230	ERDS2TJ392	3.9K 1/4	R326	ERDS2TJ392	3.9K 1/4
R102	ERDS2TJ471	470 1/4	R231	ERDS2TJ332	3.3K 1/4	R327	ERDS2TJ104	100K 1/4
R105	ERDS2TJ224	220K 1/4	R232	ERDS2TJ332	3.3K 1/4	R328	ERDS2TJ104	100K 1/4
R106	ERDS2TJ224	220K 1/4	R233	ERDS2TJ223	22K 1/4	R329	ERDS2TJ103	10K 1/4
R107	ERDS2TJ331	330 1/4	R234	ERDS2TJ122	1.2K 1/4	R330	ERDS2TJ473	47K 1/4
R108	ERDS2TJ331	330 1/4	R235	ERDS2TJ223	22K 1/4	R331	ERDS2TJ393	39K 1/4
R109	ERDS2TJ563	56K 1/4	R236	ERDS2TJ223	22K 1/4	R332	ERDS2TJ104	100K 1/4
R110	ERDS2TJ563	56K 1/4	R237	ERDS2TJ223	22K 1/4	R351	ERDS2TJ103	10K 1/4
R111	ERDS2TJ271	270 1/4	R238	ERDS2TJ152	1.5K 1/4	R352	ERDS2TJ103	10K 1/4
R112	ERDS2TJ271	270 1/4	R239	ERDS2TJ152	1.5K 1/4	R353	ERDS2TJ103	10K 1/4
R113	ERDS2TJ680	68 1/4	R251	ERDS2TJ103	10K 1/4	R354	ERDS2TJ103	10K 1/4
R114	ERDS2TJ680	68 1/4	R252	ERDS2TJ102	1K 1/4	R355	ERDS2TJ122	1.2K 1/4
R115	ERDS2TJ184	180K 1/4	R253	ERDS2TJ103	10K 1/4	R356	ERDS2TJ122	1.2K 1/4
R116	ERDS2TJ184	180K 1/4	R254	ERDS2TJ103	10K 1/4	R357	ERDS2TJ392	3.9K 1/4
R117	ERDS2TJ123	12K 1/4	R257	ERDS2TJ224	220K 1/4	R358	ERDS2TJ392	3.9K 1/4
R118	ERDS2TJ123	12K 1/4	R258	ERDS2TJ224	220K 1/4	R359	ERDS2TJ103	10K 1/4
R119	ERDS2TJ104	100K 1/4	R259	ERDS2TJ104	100K 1/4	R360	ERDS2TJ103	10K 1/4
R120	ERDS2TJ104	100K 1/4	R260	ERDS2TJ104	100K 1/4	R361	ERDS2TJ273	27K 1/4
R121	ERDS2TJ102	1K 1/4	R263	ERDS2TJ331	330 1/4	R362	ERDS2TJ273	27K 1/4
R122	ERDS2TJ102	1K 1/4	R264	ERDS2TJ331	330 1/4	R363	ERDS2TJ103	10K 1/4
R201	ERDS2TJ102	1K 1/4	R301	ERDS2TJ223	22K 1/4	R364	ERDS2TJ103	10K 1/4
R202	ERDS2TJ102	1K 1/4	R302	ERDS2TJ223	22K 1/4	R365	ERDS2TJ122	1.2K 1/4
R203	ERDS2TJ822	8.2K 1/4	R303	ERDS2TJ223	22K 1/4	R401	ERDS2TJ223	22K 1/4
R204	ERDS2TJ822	8.2K 1/4	R304	ERDS2TJ223	22K 1/4	R402	ERDS2TJ223	22K 1/4
R205	ERDS2TJ102	1K 1/4	R307	ERDS2TJ332	3.3K 1/4	R405	ERDS2TJ563	56K 1/4
R206	ERDS2TJ102	1K 1/4	R308	ERDS2TJ332	3.3K 1/4	R406	ERDS2TJ563	56K 1/4
R207	ERDS2TJ102	1K 1/4	R309	ERDS2TJ223	22K 1/4	R409	ERDS2TJ333	33K 1/4
R208	ERDS2TJ102	1K 1/4	R310	ERDS2TJ393	39K 1/4	R410	ERDS2TJ333	33K 1/4
R213	ERDS2TJ471	470 1/4	R311	ERDS2TJ223	22K 1/4	R415	ERDS2TJ821	820 1/4
R214	ERDS2TJ471	470 1/4	R312	ERDS2TJ393	39K 1/4	R416	ERDS2TJ821	820 1/4
R215	ERDS2TJ182	1.8K 1/4	R313	ERDS2TJ223	22K 1/4	R417	ERDS2TJ391	390 1/4
R216	ERDS2TJ182	1.8K 1/4	R314	ERDS2TJ223	22K 1/4	R418	ERDS2TJ391	390 1/4
R217	ERDS2TJ472	4.7K 1/4	R315	ERDS2TJ223	22K 1/4	R419	ERDS2TJ273	27K 1/4
R218	ERDS2TJ472	4.7K 1/4	R316	ERDS2TJ822	8.2K 1/4	R420	ERDS2TJ273	27K 1/4
R221	ERDS2TJ102	1K 1/4	R317	ERDS2TJ562	5.6K 1/4	R423	ERDS2TJ153	15K 1/4
R222	ERDS2TJ102	1K 1/4	R318	ERDS2TJ562	5.6K 1/4	R424	ERDS2TJ153	15K 1/4
R223	ERDS2TJ821	820 1/4	R319	ERDS2TJ562	5.6K 1/4	R425	ERDS2TJ152	1.5K 1/4
R224	ERDS2TJ821	820 1/4	R320	ERDS2TJ224	220K 1/4	R426	ERDS2TJ152	1.5K 1/4
R227	ERDS2TJ102	1K 1/4	R321	ERDS2TJ332	3.3K 1/4	R427	ERDS2TJ152	1.5K 1/4
R228	ERDS2TJ102	1K 1/4	R322	ERDS2TJ332	3.3K 1/4	R428	ERDS2TJ152	1.5K 1/4
			R324	ERDS2TJ332	3.3K 1/4	R429	ERDS2TJ822	8.2K 1/4

Ref. No.
R430
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R551
R552

■ RESISTORS AND CAPACITORS

Notes : * Important safety notice :
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)
Parts without these indications can be used for all areas.

Numbering System of Resistor

Example:

ERD	25	F	J	102
Type	Wattage (1/4W)	Shape	Tolerance	Value (1KΩ)

ERX	2	AN	J	471
Type	Wattage (2W)	Shape	Tolerance	Value (470Ω)

Numbering System of Capacitor

Example:

ECKD	1H	102	Z	F
Type	Voltage (50V)	Value (0.001μF)	Tolerance	Peculiarity

ECEA	50	M	330
Type	Voltage (50V)	Pecliarity	Value (33μF)

- Capacity are in microfarads (μF) unless specified otherwise, P = Pico-farads (pF) F = Farads (F).
- Resistance are in ohms (Ω), unless specified otherwise, 1K = 1,000Ω, 1M = 1,000kΩ

Resistor Type		Wattage		Tolerance
ERD	: Carbon	10 : 1/8W	12 : 1/2W	J : ±5%
ERG	: Metal Oxide	14 : 1/4W	25 : 1/4W	F : ±1%
ERQ	: Fuse Type Metal	1A : 1W	18 : 1/8W	G : ±2%
ERX	: Metal Film	S2 : 1/4W	S1 : 1/2W	J : ±5%
ERD L	: Carbon (chip)	2F : 1/4W	50 : 1/2W	K : ±10%
ERO K	: Metal Film (chip)	2A : 2W	3A : 3W	M : ±20%
ERC	: Solid	6G : 1/10W	8G : 1/8W	
ERF	: Incombustible Box-Shaped			
ERM	: Wire-Wound			
RRJ	: Cip Resistor			
ERJ	: Cip Resistor			

Capacitor Type		Voltage		Tolerance
ECE	: Electrolytic	0J : 6.3V	1A : 10V	K : ±10%
ECCD	: Ceramic	1C : 16V	1E : 25V	M : ±20%
ECKD	: Ceramic Capacitor	1H : 50V	1V : 35V	Z : +80 % −20
ECQM	: Poyester	50 : 50V	05 : 50V	
ECQP	: Polypropylene	2H : 500V	2A : 100V	J : ±5%
ECG	: Ceramic	1 : 100V	1J : 63V	G : ±2%
ECEA N	: Non Polar Electrolytic	KC : 400V AC		F : ±1%
QCU	: Ceramic (Chip Type)	KC : 125V AC (UL)		C : ±0.25pF
ECUX	: Ceramic (Chip Type)			D : ±0.5pF
ECF	: Semiconductor			
EECW	: Liquid electrolyte double layer capacitor			

Ref. No.	Part No.	Value.
RESISTORS(VALUE,WATTAGE)		
R101	ERDS2TJ471	470 1/4
R102	ERDS2TJ471	470 1/4
R105	ERDS2TJ224	220K 1/4
R106	ERDS2TJ224	220K 1/4
R107	ERDS2TJ331	330 1/4
R108	ERDS2TJ331	330 1/4
R109	ERDS2TJ563	56K 1/4
R110	ERDS2TJ563	56K 1/4
R111	ERDS2TJ271	270 1/4
R112	ERDS2TJ271	270 1/4
R113	ERDS2TJ680	68 1/4
R114	ERDS2TJ680	68 1/4
R115	ERDS2TJ184	180K 1/4
R116	ERDS2TJ184	180K 1/4
R117	ERDS2TJ123	12K 1/4
R118	ERDS2TJ123	12K 1/4
R119	ERDS2TJ104	100K 1/4
R120	ERDS2TJ104	100K 1/4
R121	ERDS2TJ102	1K 1/4
R122	ERDS2TJ102	1K 1/4
R201	ERDS2TJ102	1K 1/4
R202	ERDS2TJ102	1K 1/4
R203	ERDS2TJ822	8.2K 1/4
R204	ERDS2TJ822	8.2K 1/4
R205	ERDS2TJ102	1K 1/4
R206	ERDS2TJ102	1K 1/4
R207	ERDS2TJ102	1K 1/4
R208	ERDS2TJ102	1K 1/4
R213	ERDS2TJ471	470 1/4
R214	ERDS2TJ471	470 1/4
R215	ERDS2TJ182	1.8K 1/4
R216	ERDS2TJ182	1.8K 1/4
R217	ERDS2TJ472	4.7K 1/4
R218	ERDS2TJ472	4.7K 1/4
R221	ERDS2TJ102	1K 1/4
R222	ERDS2TJ102	1K 1/4
R223	ERDS2TJ821	820 1/4
R224	ERDS2TJ821	820 1/4
R227	ERDS2TJ102	1K 1/4
R228	ERDS2TJ102	1K 1/4
R229	ERDS2TJ392	3.9K 1/4
R230	ERDS2TJ392	3.9K 1/4
R231	ERDS2TJ332	3.3K 1/4
R232	ERDS2TJ332	3.3K 1/4
R233	ERDS2TJ223	22K 1/4
R234	ERDS2TJ122	1.2K 1/4
R235	ERDS2TJ223	22K 1/4
R236	ERDS2TJ223	22K 1/4
R237	ERDS2TJ223	22K 1/4
R238	ERDS2TJ152	1.5K 1/4
R239	ERDS2TJ152	1.5K 1/4
R251	ERDS2TJ103	10K 1/4
R252	ERDS2TJ102	1K 1/4
R253	ERDS2TJ103	10K 1/4
R254	ERDS2TJ103	10K 1/4
R257	ERDS2TJ224	220K 1/4
R258	ERDS2TJ224	220K 1/4
R259	ERDS2TJ104	100K 1/4
R260	ERDS2TJ104	100K 1/4
R263	ERDS2TJ331	330 1/4
R264	ERDS2TJ331	330 1/4
R301	ERDS2TJ223	22K 1/4
R302	ERDS2TJ223	22K 1/4
R303	ERDS2TJ223	22K 1/4
R304	ERDS2TJ223	22K 1/4
R307	ERDS2TJ332	3.3K 1/4
R308	ERDS2TJ332	3.3K 1/4
R309	ERDS2TJ223	22K 1/4
R310	ERDS2TJ393	39K 1/4
R311	ERDS2TJ223	22K 1/4
R312	ERDS2TJ393	39K 1/4
R313	ERDS2TJ223	22K 1/4
R314	ERDS2TJ223	22K 1/4
R315	ERDS2TJ223	22K 1/4
R316	ERDS2TJ822	8.2K 1/4
R317	ERDS2TJ562	5.6K 1/4
R318	ERDS2TJ562	5.6K 1/4
R319	ERDS2TJ562	5.6K 1/4
R320	ERDS2TJ224	220K 1/4
R321	ERDS2TJ332	3.3K 1/4
R322	ERDS2TJ332	3.3K 1/4
R324	ERDS2TJ332	3.3K 1/4
R325	ERDS2TJ392	3.9K 1/4
R326	ERDS2TJ392	3.9K 1/4
R327	ERDS2TJ104	100K 1/4
R328	ERDS2TJ104	100K 1/4
R329	ERDS2TJ103	10K 1/4
R330	ERDS2TJ473	47K 1/4
R331	ERDS2TJ393	39K 1/4
R332	ERDS2TJ104	100K 1/4
R351	ERDS2TJ103	10K 1/4
R352	ERDS2TJ103	10K 1/4
R353	ERDS2TJ103	10K 1/4
R354	ERDS2TJ103	10K 1/4
R355	ERDS2TJ122	1.2K 1/4
R356	ERDS2TJ122	1.2K 1/4
R357	ERDS2TJ392	3.9K 1/4
R358	ERDS2TJ392	3.9K 1/4
R359	ERDS2TJ103	10K 1/4
R360	ERDS2TJ103	10K 1/4
R361	ERDS2TJ273	27K 1/4
R362	ERDS2TJ273	27K 1/4
R363	ERDS2TJ103	10K 1/4
R364	ERDS2TJ103	10K 1/4
R365	ERDS2TJ122	1.2K 1/4
R401	ERDS2TJ223	22K 1/4
R402	ERDS2TJ223	22K 1/4
R405	ERDS2TJ563	56K 1/4
R406	ERDS2TJ563	56K 1/4
R409	ERDS2TJ333	33K 1/4
R410	ERDS2TJ333	33K 1/4
R415	ERDS2TJ821	820 1/4
R416	ERDS2TJ821	820 1/4
R417	ERDS2TJ391	390 1/4
R418	ERDS2TJ391	390 1/4
R419	ERDS2TJ273	27K 1/4
R420	ERDS2TJ273	27K 1/4
R423	ERDS2TJ153	15K 1/4
R424	ERDS2TJ153	15K 1/4
R425	ERDS2TJ152	1.5K 1/4
R426	ERDS2TJ152	1.5K 1/4
R427	ERDS2TJ152	1.5K 1/4
R428	ERDS2TJ152	1.5K 1/4
R429	ERDS2TJ822	8.2K 1/4

Ref. No.	Part No.	Value.
R430	ERDS2TJ822	8.2K 1/4
R431	ERDS2TJ102	1K 1/4
R432	ERDS2TJ102	1K 1/4
R433	ERDS2TJ223	22K 1/4
R434	ERDS2TJ105	1M 1/4
R435	ERDS2TJ334	330K 1/4
R436	ERDS2TJ103	10K 1/4
R437	ERDS2TJ473	47K 1/4
R438	ERDS2TJ105	1M 1/4
R439	ERDS2TJ103	10K 1/4
R442	ERDS2TJ272	2.7K 1/4
R443	ERDS2TJ102	1K 1/4
R444	ERDS2TJ102	1K 1/4
R451	ERDS2TJ224	220K 1/4
R452	ERDS2TJ224	220K 1/4
R453	ERDS2TJ474	470K 1/4
R454	ERDS2TJ474	470K 1/4
R455	ERDS2TJ102	1K 1/4
R456	ERDS2TJ102	1K 1/4
R457	ERDS2TJ822	8.2K 1/4
R458	ERDS2TJ822	8.2K 1/4
R461	ERDS2TJ223	22K 1/4
R462	ERDS2TJ223	22K 1/4
R463	ERDS2TJ392	3.9K 1/4
R464	ERDS2TJ392	3.9K 1/4
R465	ERDS2TJ333	33K 1/4
R466	ERDS2TJ333	33K 1/4
R467	ERDS2TJ182	1.8K 1/4
R468	ERDS2TJ182	1.8K 1/4
R469	ERDS2TJ821	820 1/4
R470	ERDS2TJ821	820 1/4
R471	ERDS2TJ152	1.5K 1/4
R472	ERDS2TJ152	1.5K 1/4
R473	ERDS2TJ152	1.5K 1/4
R474	ERDS2TJ152	1.5K 1/4
R475	ERDS2TJ102	1K 1/4
R476	ERDS2TJ102	1K 1/4
R477	ERDS2TJ223	22K 1/4
R478	ERDS2TJ272	2.7K 1/4
R501	ERDS2TJ222	2.2K 1/4
R502	ERDS2TJ222	2.2K 1/4
R503	ERDS2TJ473	47K 1/4
R504	ERDS2TJ473	47K 1/4
R505	ERDS2TJ392	3.9K 1/4
R506	ERDS2TJ392	3.9K 1/4
R507	ERDS2TJ681	680 1/4
R508	ERDS2TJ681	680 1/4
R509	ERD25FJ470	47 1/4
R510	ERD25FJ470	47 1/4
R513	ERD25FJ470	47 1/4
R514	ERDS2TJ823	82K 1/4
R525	ERDS2TJ182	1.8K 1/4
R526	ERDS2TJ182	1.8K 1/4
R527	ERDS2TJ331	330 1/4
R528	ERDS2TJ331	330 1/4
R529	ERDS2TJ332	3.3K 1/4
R530	ERDS2TJ332	3.3K 1/4
R531	ERDS2TJ332	3.3K 1/4
R532	ERDS2TJ332	3.3K 1/4
R533	ERDS2TJ223	22K 1/4
R534	ERDS2TJ223	22K 1/4
R535	ERDS2TJ223	22K 1/4
R536	ERDS2TJ223	22K 1/4
R537	ERD25FJ681	680 1/4
R538	ERD25FJ681	680 1/4
R539	ERD25FJ101	100 1/4
R540	ERD25FJ101	100 1/4
R541	ERD25FJ101	100 1/4
R542	ERD25FJ101	100 1/4
R543	ERD25FJ2R2	2.2 1/4
R544	ERD25FJ2R2	2.2 1/4
R545	ERD25FJ2R2	2.2 1/4
R546	ERD25FJ2R2	2.2 1/4
R547	ERD25FJ6R8	6.8 1/4
R548	ERD25FJ6R8	6.8 1/4
R551	ERDS2TJ103	10K 1/4
R552	ERDS1FJ331	330 1/2
R553	ERDS2TJ153	15K 1/4
R554	ERDS2TJ103	10K 1/4
R559	ERDS1FJ100	10 1/2
(EG, E1)		
R560	ERDS1FJ100	10 1/2
(EG, E1)		
R561	ERDS1FJ100	10 1/2
(EG, E1)		
R562	ERDS1FJ100	10 1/2
(EG, E1)		
R565	ERDS2TJ473	47K 1/4
R566	ERDS2TJ473	47K 1/4
R567	ERDS2TJ473	47K 1/4
R568	ERDS2TJ473	47K 1/4
R570	ERG3ANJ102	1K 3
R571	ER0S2TKF4220	422 1/4
R572	ER0S2TKF4220	422 1/4
R573	ER0S2TKF1000	100 1/4
R574	ER0S2TKF1000	100 1/4
R575	ER0S2TKF1000	100 1/4
R576	ER0S2TKF1000	100 1/4
R577	ERD2FCG271	270 1/4
R578	ERD2FCG271	270 1/4
R579	ERDS2TJ271	270 1/4
R580	ERDS2TJ271	270 1/4
R581	ERDS2TJ153	15K 1/4
R582	ERDS2TJ153	15K 1/4
R585	ERDS2TJ472	4.7K 1/4
R586	ERDS2TJ472	4.7K 1/4
R587	ERDS1FJ100	10 1/2
R588	ERDS1FJ100	10 1/2
R589	ERDS1FJ100	10 1/2
R590	ERDS1FJ100	10 1/2
R591	ERG2ANJ331	330 2
R592	ERG2ANJ331	330 2
R593	ERDS2TJ223	22K 1/4
R594	ERDS2TJ223	22K 1/4
R595	ERDS2TJ223	22K 1/4
R596	ERDS2TJ223	22K 1/4
R601	ERDS2TJ223	22K 1/4
R602	ERDS2TJ103	10K 1/4
R603	ERDS2TJ103	10K 1/4
R610	ERDS2TJ470	47 1/4
R611	ERDS2TJ470	47 1/4
R612	ERDS2TJ470	47 1/4
R613	ERDS2TJ470	47 1/4
R614	ERDS2TJ470	47 1/4
R615	ERDS2TJ470	47 1/4
R616	ERDS2TJ470	47 1/4
R617	ERDS2TJ470	47 1/4
R618	ERDS2TJ822	8.2K 1/4
R619	ERDS2TJ272	2.7K 1/4
R620	ERDS2TJ272	2.7K 1/4
R621	ERDS2TJ272	2.7K 1/4
R622	ERDS2TJ332	3.3K 1/4
R623	ERDS2TJ223	22K 1/4
R624	ERDS2TJ223	22K 1/4
R625	ERDS2TJ104	100K 1/4
R626	ERDS2TJ105	1M 1/4
R627	ERDS2TJ102	1K 1/4
R628	ERDS2TJ104	100K 1/4
R631	ERDS2TJ102	1K 1/4
R632	ERDS2TJ102	1K 1/4
R633	ERDS2TJ153	15K 1/4
R634	ERDS2TJ153	15K 1/4
R635	ERDS2TJ473	47K 1/4
R636	ERDS2TJ473	47K 1/4
R637	ERDS2TJ330	33 1/4
R638	ERDS2TJ101	100 1/4
R639	ERDS2TJ101	100 1/4
R640	ERDS2TJ105	1M 1/4
R641	ERDS2TJ220	22 1/4
R645	ERDS2TJ102	1K 1/4
R646	ERDS2TJ102	1K 1/4
R651	ERDS2TJ221	220 1/4
R652	ERDS2TJ221	220 1/4
R653	ERDS2TJ221	220 1/4
R654	ERDS2TJ151	150 1/4
R655	ERDS2TJ151	150 1/4
R656	ERDS2TJ221	220 1/4
R657	ERDS2TJ221	220 1/4
R658	ERDS2TJ331	330 1/4
R659	ERDS2TJ121	120 1/4
R660	ERDS2TJ121	120 1/4
R701	ERDS1FJ2R2	2.2 1/2
R702	ERD25FJ3R3	3.3 1/4
R703	ERDS2TJ682	6.8K 1/4
R704	ERDS2TJ822	8.2K 1/4
R705	ERDS2TJ333	33K 1/4
R706	ERDS1FJ100	10 1/2
R707	ERDS2TJ222	2.2K 1/4
R708	ERDS2TJ682	6.8K 1/4
R710	ERDS1FJ331	330 1/2
R711	ERDS2TJ272	2.7K 1/4
R733	ERDS2TJ153	15K 1/4
R734	ERDS2TJ684	680K 1/4
R735	ERDS2TJ104	100K 1/4
R736	ERDS2TJ223	22K 1/4
R800	ERDS2TJ221	220 1/4
R801	ERDS2TJ102	1K 1/4
R802	ERDS2TJ103	10K 1/4
R803	ERDS2TJ101	100 1/4
R804	ERDS2TJ101	100 1/4
R805	ERDS2TJ821	820 1/4
R806	ERDS2TJ151	150 1/4
R807	ERDS2TJ102	1K 1/4
R808	ERDS2TJ105	1M 1/4
R809	ERDS2TJ562	5.6K 1/4
R810	ERDS2TJ471	470 1/4
R811	ERDS2TJ101	100 1/4
R812	ERDS2TJ101	100 1/4
R814	ERDS2TJ223	22K 1/4
R815	ERDS2TJ224	220K 1/4
R816	ERDS2TJ224	220K 1/4
R817	ERDS2TJ272	2.7K 1/4
R818	ERDS2TJ103	10K 1/4
R819	ERDS2TJ103	10K 1/4
R821	ERDS2TJ272	2.7K 1/4
R822	ERDS2TJ272	2.7K 1/4
R823	ERDS2TJ222	2.2K 1/4
R824	ERDS2TJ222	2.2K 1/4
R825	ERDS2TJ272	2.7K 1/4
R826	ERDS2TJ474	470K 1/4
R827	ERDS2TJ102	1K 1/4
R828	ERDS2TJ102	1K 1/4
R829	ERDS2TJ102	1K 1/4
R830	ERDS2TJ102	1K 1/4
R831	ERDS2TJ472	4.7K 1/4
R832	ERDS2TJ472	4.7K 1/4
R833	ERDS2TJ822	8.2K 1/4
R834	ERDS2TJ822	8.2K 1/4
R835	ERDS2TJ102	1K 1/4
R836	ERDS2TJ102	1K 1/4
R837	ERDS2TJ104	100K 1/4
R838	ERDS2TJ564	560K 1/4
R839	ERDS1FJ391	390 1/2
R840	ERDS1FJ271	270 1/2
R841	ERDS2TJ474	470K 1/4
R842	ERDS2TJ474	470K 1/4
CAPACITORS(VALUE,VOLTAGE)		
C101	RCBC1H180JLY	18P 50
(EG, E1)		
C102	RCBC1H180JLY	18P 50
(EG, E1)		
C103	RCBC1H151KBY	150P 50
(EG, E1)		
C104	RCBC1H151KBY	150P 50
(EG, E1)		
C105	ECEA1HPS3R3	3.3 50
C106	ECEA1HPS3R3	3.3 50
C107	RCBC1H101KBY	100P 50
C108	RCBC1H101KBY	100P 50
C109	ECBT1H102KB	0.001 50

Ref. No.	Part No.	Value.
C110	ECBT1H102KB	0.001 50
C111	ECEA0JPS330	33 6.3
C112	ECEA0JPS330	33 6.3
C115	ECFTD223KXL	0.022 25
C116	ECFTD223KXL	0.022 25
C117	ECFTD682KXL	0.0068 25
C118	ECFTD682KXL	0.0068 25
C119	ECEA1HPS3R3	3.3 50
C120	ECEA1HPS3R3	3.3 50
C121	ECFTD103KXL	0.01 25
C122	ECFTD103KXL	0.01 25
C123	ECKD1H473ZF	0.047 50
C124	ECFTD103KXL	0.01 25
(EG, EI)		
C201	ECEA1HPS3R3	3.3 50
C202	ECEA1HPS3R3	3.3 50
C203	ECEA1HPS3R3	3.3 50
C204	ECEA1HPS3R3	3.3 50
C205	ECEA1HPS3R3	3.3 50
C206	ECEA1HPS3R3	3.3 50
C220	ECKD1H473ZF	0.047 50
C221	ECEA1CKS100	10 16
C222	ECEA1CK220	22 16
C223	ECEA1CK220	22 16
C224	ECKD1H223PF	0.022 50
C225	ECKD1H223PF	0.022 50
C226	ECKD1H473ZF	0.047 50
C227	ECQV1H104JZ	0.1 50
C251	RCBC1H101KBY	100P 50
(EG, EI)		
C252	RCBC1H101KBY	100P 50
(EG, EI)		
C253	RCBC1H101KBY	100P 50
(EG, EI)		
C254	RCBC1H101KBY	100P 50
(EG, EI)		
C255	RCBC1H101KBY	100P 50
(EG, EI)		
C256	RCBC1H101KBY	100P 50
(EG, EI)		
C257	RCBC1H101KBY	100P 50
(EG, EI)		
C258	RCBC1H101KBY	100P 50
(EG, EI)		
C261	RCBC1H101KBY	100P 50
(EG, EI)		
C262	RCBC1H101KBY	100P 50
(EG, EI)		
C263	RCBC1H101KBY	100P 50
(EG, EI)		
C264	RCBC1H101KBY	100P 50
(EG, EI)		
C265	RCBC1H101KBY	100P 50
(EG, EI)		
C266	RCBC1H101KBY	100P 50
(EG, EI)		
C267	RCBC1H101KBY	100P 50
(EG, EI)		
C268	RCBC1H101KBY	100P 50
(EG, EI)		
C269	RCBC1H101KBY	100P 50
(EG, EI)		
C270	RCBC1H101KBY	100P 50
(EG, EI)		
C271	RCBC1H101KBY	100P 50
(EG, EI)		
C272	RCBC1H101KBY	100P 50
(EG, EI)		
C307	RCBC1H680JLY	68P 50
C308	ECFTD823KXL	0.082 25
C309	ECEA1EK3R3B	3.3 25
C310	RCBS1H221KBY	220P 50
C311	ECEA1EK3R3B	3.3 25
C313	RCBS1H820KBY	82P 50
C314	RCBS1H820KBY	82P 50
C315	ECEA1HPS3R3	3.3 50
C316	ECEA1HPS3R3	3.3 50
C317	ECFTD104KXL	0.1 25
C318	ECKD1H223PF	0.022 50
C351	ECBT1E103ZF	0.01 25
C352	ECBT1E103ZF	0.01 25
C353	RCBS1H330JLY	33P 50
C354	RCBS1H330JLY	33P 50
C355	ECEA1HPS3R3	3.3 50
C356	ECEA1HPS3R3	3.3 50
C357	ECEA1HPS3R3	3.3 50
C358	ECEA1HPS3R3	3.3 50
C359	RCBS1H330JLY	33P 50
C360	RCBS1H330JLY	33P 50
C361	ECEA1HPS3R3	3.3 50
C362	ECEA1HPS3R3	3.3 50
C363	ECEA1HPS3R3	3.3 50
C364	ECEA1HPS3R3	3.3 50
C365	ECEA1CK220	22 16
C367	ECEA1CK220	22 16
C369	ECEA1CK220	22 16
C370	ECEA1CK220	22 16
C373	RCBS1H820KBY	82P 50
(EG, EI)		
C374	RCBS1H820KBY	82P 50
(EG, EI)		
C401	ECEA1EK3R3B	3.3 25
C402	ECEA1EK3R3B	3.3 25
C409	RCBC1H101KBY	100P 50
C410	RCBC1H101KBY	100P 50
C411	RCBS1H100JLY	10P 50
C412	RCBS1H100JLY	10P 50
C413	ECEA1HK2R2B	2.2 50
C414	ECEA1HK2R2B	2.2 50
C419	ECFTD473KXL	0.047 25
C420	ECFTD473KXL	0.047 25
C421	ECEA1HK2R2B	2.2 50
C422	ECEA1HK2R2B	2.2 50
C423	ECEA1HPS3R3	3.3 50
C424	ECEA1HPS3R3	3.3 50
C425	ECEA1HPS3R3	3.3 50
C426	ECEA1HPS3R3	3.3 50
C427	ECEA1HPS3R3	3.3 50
C428	ECEA1HPS3R3	3.3 50
C431	ECFTD104KXL	0.1 25
C432	ECEA1HK010	1 50
C451	RCBC1H101KBY	100P 50
C452	RCBC1H101KBY	100P 50
C453	RCBC1H680JLY	68P 50
C454	RCBC1H680JLY	68P 50
C455	ECBT1H821KB	820P 50
C456	ECBT1H821KB	820P 50
C457	ECFTD123KXL	0.012 25
C458	ECFTD123KXL	0.012 25
C459	ECFTD683KXL	0.068 25
C460	ECFTD683KXL	0.068 25
C461	ECEA1HPS010	1 50
C462	ECEA1HPS010	1 50
C463	ECFTD472KXL	0.0047 25
C464	ECFTD472KXL	0.0047 25
C465	ECFTD223KXL	0.022 25
C466	ECFTD223KXL	0.022 25
C467	ECEA1HPS3R3	3.3 50
C468	ECEA1HPS3R3	3.3 50
C469	ECFTD103KXL	0.01 25
C470	ECFTD103KXL	0.01 25
C471	ECEA1CK470	47 16
C501	ECEA1HPS3R3	3.3 50
C502	ECEA1HPS3R3	3.3 50
C503	RCBC1H151KBY	150P 50
C504	RCBC1H151KBY	150P 50
C505	ECEA1CK220	22 16
C506	ECEA1CK220	22 16
C507	RCBS1H820KBY	82P 50
C508	RCBS1H820KBY	82P 50
C509	ECBT1H102KB	0.001 50
C510	ECBT1H102KB	0.001 50
C511	ECFTD103KXL	0.01 25
C512	ECFTD103KXL	0.01 25
C513	RCBS1H6R8KLY	6.8P 50
C514	RCBS1H6R8KLY	6.8P 50
C515	ECEA2AU010	1 100
C516	ECEA1HK010	1 50
C525	ECKD1H333PF	0.033 50
C526	ECKD1H333PF	0.033 50
C527	ECEA1VU330	33 35
C528	ECEA1VU330	33 35
C531	RCBC1H680JLY	68P 50
C532	RCBC1H680JLY	68P 50
C533	RCBC1H680JLY	68P 50
C534	RCBC1H680JLY	68P 50
C535	ECEA1HK010	1 50
C536	ECEA1HK010	1 50
C551	ECEA1CKS100	10 16
C552	ECEA1CK470	47 16
C553	ECEA1CK101	100 16
C561	ECKD1H102KB	0.001 50
(EG, EI)		
C562	ECKD1H102KB	0.001 50
(EG, EI)		
C563	ECKD1H223PF	0.022 50
(EG, EI)		
C564	ECKD1H223PF	0.022 50
(EG, EI)		
C565	ECKD1H102KB	0.001 50
(EG, EI)		
C566	ECKD1H102KB	0.001 50
(EG, EI)		
C567	ECKD1H223PF	0.022 50
(EG, EI)		
C568	ECKD1H223PF	0.022 50
(EG, EI)		
C569	RCBC1H180JLY	18P 50
C570	RCBC1H180JLY	18P 50
C571	RCBS1H330JLY	33P 50
C572	RCBS1H330JLY	33P 50
C573	RCBC1H560JLY	56P 50
C574	RCBC1H560JLY	56P 50
C575	ECKD1H392KB	0.0039 50
C576	ECKD1H392KB	0.0039 50
C577	ECEA1HK010	1 50
C578	ECEA1HK010	1 50
C579	RCBS1H330JLY	33P 50
C580	RCBS1H330JLY	33P 50
C581	ECEA1AU101	100 10
C582	ECEA1AU101	100 10
C583	ECEA1AU101	100 10
C584	ECEA1AU101	100 10
C585	ECBT1H821KB	820P 50
C586	ECBT1H821KB	820P 50
C587	ECKD1H472ZF	0.0047 50
C588	ECKD1H472ZF	0.0047 50
C589	ECKD1H333PF	0.033 50
C590	ECKD1H333PF	0.033 50
C591	ECKD1H333PF	0.033 50
C592	ECKD1H333PF	0.033 50
C593	ECFTD473KXL	0.047 25
C594	ECFTD473KXL	0.047 25
C595	ECFTD473KXL	0.047 25
C596	ECFTD473KXL	0.047 25
C597	RCBS1H221KBY	220P 50
(EG, EI)		
C598	RCBS1H221KBY	220P 50
(EG, EI)		
C600	ECEA1CKS100	10 16
C601	ECEA1CK101	100 16
C602	ECKD1H223PF	0.022 50
C603	ECEA1HK010	1 50
C604	ECFTD333KXL	0.033 25
C605	ECFTD683KXL	0.068 25
C606	ECEA1EK4R7	4.7 25
C607	ECEA1HK010	1 50
C608	ECBT1H102KB5	0.001 50
C609	ECBT1H102KB5	0.001 50
C610	ECEA1CKS100	10 16
C611	RCBC1H101KBY	100P 50

Ref. No.	Part No.	Value.
C612	RCBC1H101KBY	100P 50
C613	RCBS1H221KBY	220P 50
C614	RCBS1H221KBY	220P 50
C615	ECEA1VKA330	33 35
C616	ECEA1HK2R2B	2.2 50
C617	ECEA1HK2R2B	2.2 50
C618	ECKD1H223PF	0.022 50
C619	ECFTD103KXL	0.01 25
C620	ECKD1H103PF	0.01 50
C621	ECKD1H103PF	0.01 50
C622	ECKD1H103PF	0.01 50
C623	ECKD1H103PF	0.01 50
C624	ECKD1H103PF	0.01 50
C625	ECKD1H103PF	0.01 50
C626	ECKD1H473ZF	0.047 50
C627	ECKD1H103PF	0.01 50
C628	ECKD1H103PF	0.01 50
C629	ECKD1H102KB	0.001 50
C630	ECKD1H103PF	0.01 50
C631	ECKD1H103PF	0.01 50
C632	ECKD1H103PF	0.01 50
C697	ECQV1H474JZ3	0.47 50
C698	RCBS1H221KBY	220P 50
C699	RCBS1H221KBY	220P 50
C700	ECKDKC103PF2	0.01 125
C701	ECETS1JU682U	6800
C702	ECETS1JU682U	6800
C703	ECFTD103KXL	0.01 25
C704	ECFTD103KXL	0.01 25
C705	ECEA1CU470	47 16
C706	ECEA1CU470	47 16
C707	ECEA1CK220	22 16
C708	ECEA1CK220	22 16
C709	ECQE2104KS	0.1 250
C710	ECEA1HK4R7	4.7 50
C711	ECEA1VK100B	10 35
C712	ECEA1VU330	33 35
C713	ECEA1CKS100	10 16
C714	ECEA1HK010	1 50
C715	ECFTD473KXL	0.047 25
(EG, EI)		
C731	ECEA0JS331	330 6.3
C732	ECKD1H223PF	0.022 50
C733	ECEA0JK330	33 6.3
C734	ECEA1CKS100	10 16
C803	ECEA0JU101	100 6.3
C804	ECEA0JU101	100 6.3
C805	ECEA0JU101	100 6.3
C806	ECEA0JU101	100 6.3
C807	ECQV1H104JZ	0.1 50
C808	ECEA0JU101	100 6.3
C809	ECQV1H104JZ	0.1 50
C810	ECQM1H103JZ	0.01 50
C811	RCBS1H100JLY	10P 50
C812	RCBS1H100JLY	10P 50
C813	ECEA1HK010	1 50
C814	ECEA0JU101	100 6.3
C815	RCBC1H151KBY	150P 50
C816	RCBS1H6R8KLY	6.8P 50
C821	ECEA0JU101	100 6.3
C822	ECEA0JU101	100 6.3
C823	ECQV1H104JZ	0.1 50
C824	ECEA1EK4R7	4.7 25
C825	ECFTD104KXL	0.1 25
C827	RCBS1H271KBY	270P 50
C828	RCBS1H271KBY	270P 50
C829	ECEA1EN4R7S	4.7 25
C830	ECEA1EN4R7S	4.7 25
C831	ECBT1H102KB	0.001 50
C832	ECBT1H102KB	0.001 50
C833	ECQV1H104JZ	0.1 50
C834	ECQV1H104JZ	0.1 50
C835	ECEA1CKS100	10 16
C836	ECEA1EK3R3	3.3 25

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